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## PATRIOTISM.

Breathes there a man with soul so dead,  
Who never to himself hath said,  
"This is my own—my native land."  
Whose heart hath ne'er within him burned  
As home his footsteps he hath turned,  
From wandering on a foreign strand?

If such there breathe, go, mark him well!  
For him no minstrel's raptures swell.  
High though his titles, proud his name,  
Boundless his wealth as wish can claim,—  
Despite those titles, power and pelf,  
The wretch, concentered all in self,  
Living shall forfeit fair renown,  
And, doubly dying, shall go down  
To the vile dust from whence he sprang.  
Unwept, unhonored, and unsung.

—Scott.

## "PUTTING THINGS STRAIGHT."

THE MANUFACTURERS RECORD is glad to know that throughout the country there are found some faithful, honest people of German descent loyal to this country, to which they have sworn allegiance, such people as one mentioned by Rev. T. F. Babcock of Gravity, Iowa, who, in a letter to the MANUFACTURERS RECORD, says:

I thank God that we have among us, on this side of the sea, Germans to say as one did not long ago through one of our State papers: "I have reared 12 children. When this Government wants them it can have from my home seven soldiers and five nurses."

We regret, however, that the number of such Germans that are making themselves known in this way is very limited. If the people of German descent in this country want to save themselves from serious trouble and stand with honest, loyal Americans, it is time that their voice should be heard through public gatherings, from the pulpit, through their societies and through German-language papers as long as the Government permits such to be published, and in every other way.

Until people of German descent thus aggressively stand before the country as standing for the country they are in effect disloyal, weak-kneed and too cowardly to make their position known.

Dr. Babcock in his letter, referring to the fact that he is now 81 years of age, and, therefore, cannot take an active part in the movements of today, says:

I congratulate you for the clear and level head you manifest in these trying and awful times with reference to war matters. You are putting things straight, thank God!

## Our Great Grain and Potato Crops and Their Relation to World Needs.

WITH an output of 5,804,000,000 bushels of grain as the forecasted yield for this year against an actual crop of 4,800,000,000 bushels in 1916, we have a probable gain in grain of over 1,000,000,000 bushels. There is also a gain of 177,000,000 bushels of white potatoes and 17,000,000 bushels of sweet potatoes, or a total of 194,000,000 bushels of all potatoes.

These figures put us back almost to the great production of 1915, the banner year in our history, just as 1916 was our most disastrous crop year. The magnificent increase this year in nearly everything except wheat, in which the gain was small, will help to fill up the vacuum now existing and carry us forward to the next crop.

Let us not deceive ourselves, however. These great yields will only serve to take up the slack or to fill the void due to the shortage last year of nearly 1,400,000,000 bushels of grain and foodstuffs compared with 1915, and so we must prepare to make still greater crops in 1918. The war will be won or lost according to our food supply and our ability to feed the Allies.

Based on the September crop conditions, the U. S. Agricultural Department now indicates a yield of 668,000,000 bushels of wheat, or a gain of 15,000,000 bushels over the forecast of August. While this yield if fulfilled will be 28,000,000 bushels more than the crop of 1915, it will fall 140,000,000 bushels short of the average crop of five years from 1911 to 1915, notwithstanding the heavy increase in our population during that five-year period and the enormous increase in the demand for wheat from Europe.

This indicated yield is due to a larger yield per acre, the prospects for this year being at an average of 14 3-10 bushels per acre, or 2 2-10 bushels per acre over the actual yield of last year. This year's yield, however, will be something more than one bushel per acre less than the average for the five years ending with 1915.

The indicated corn crop is 3,248,000,000 bushels, which will be 124,000,000 bushels in excess of the highest yield ever made before, which was in 1912, when the total crop was 3,124,000,000 bushels. This year's corn crop indicates, unless it should be cut short by adverse weather, a gain of 665,000,000 bushels over last year's yield. While this is an exceptionally favorable crop output, it should be studied in connection with the great shortage of the preceding year as compared with 1915 and with the fact that the supply of corn now in the country is the lowest in the history of the corn trade. Until the new crop is ready for the market the country will be practically bare of corn and we shall, there-

fore, enter the new crop year with the lowest reserves known.

It is fortunate that while this is true as to corn, there has also been an increase of about 280,000,000 bushels in the indicated oat yield, which will largely help to fill up the present vacuum in the corn supply. A slight increase is also found in barley, rye and buckwheat, while the potato crop is 99,000,000 bushels more than the average of the preceding five years, and 177,000,000 bushels more than the yield of 1916, and the sweet potato crop is 28,000,000 bushels more.

With the shortage of foodstuffs generally last year, as compared with the preceding year, the country should be able to consume the big potato crop of this year without difficulty and without any serious decline in prices below the measure of a fair profit to the growers.

Rice promises a crop of 8,000,000 bushels less than in 1916, while the apple shortage is reported as 25,000,000 barrels less. In kafirs there has been a great increase, the production for the year being estimated at 103,000,000 bushels as compared with 50,000,000 bushels for 1916.

In view of the world's shortage of food, it is exceedingly gratifying that Providence has so blessed us with these cereals and with an increased potato supply. This condition will help us to meet the deficiency in wheat for which the world is suffering. The people of this country must consume more corn and oats and potatoes and less wheat than ever before in order to save wheat for the Allies, for without wheat they could not possibly win the war. What has been done this year in increased foodstuff production should be a stimulation to the farmers of the whole country to still greater increase production next year. For years to come the world must go hungry to a large extent and it will depend upon us, as never before, to increase production to a point to meet the tremendous demands which Europe for years to come will make upon our food supplies.

It is impossible within the next few years to make any material increase in the number of livestock, excepting hogs. In the meantime, the world's supply of livestock is rapidly decreasing. High meats are, therefore, inevitable, unless consumers shall turn more and more to the consumption of vegetables and other foodstuffs than meat, and this should be done to as great an extent as possible.

While the foregoing figures are based on the September report of the United States Department of Agriculture, we have always taken the ground that no September forecast of the corn crop could be safe. The cold weather which has prevailed during the last few days and which may injure corn throughout much of the West is an illustration of the possibilities of danger to the crop during September, but we trust that there will be no serious decrease in the yield as forecast by the Government.

## HOW THE UNITED STATES GOVERNMENT FAVORS WHISKEY AND BEER IN PREFERENCE TO A WHOLESOME COTTONSEED-OIL PRODUCT.

THE United States Government charges an annual internal revenue license tax of \$50 to brewers of less than 500 barrels of beer a year and \$100 to brewers of more than 500 barrels.

The license tax for distillers is \$100 if they make less than 500 barrels of whiskey per year and \$200 if they make more than 500 barrels.

A wholesale liquor dealer pays a license of \$100 and a retail liquor dealer a tax of \$25.

The man who dares, however, to manufacture oleomargarine, a healthy food product which sustains nature, while whiskey destroys body and soul, must pay an internal revenue tax of \$600 a year, or \$400 more than the biggest distiller. It matters not how small may be the factory producing oleomargarine, the Government license is \$600 a year, or three times as much as that of the biggest maker of whiskey.

A wholesale dealer in uncolored oleomargarine must pay \$200 a year, or twice as much as the wholesale whiskey dealer. The wholesale dealer in colored oleomargarine is taxed \$480 a year for the privilege of handling this food product, or nearly five times as much as the wholesale whiskey dealer is charged for selling his vile product.

The retail dealer in colored oleomargarine is charged \$48 a year by the Government for the privilege tax in furnishing to his customers a wholesome food product. The retail liquor dealer gets off with \$25 a year.

These figures give some indication of the spirit which prompted the passage through Congress of the measures designed for the express purpose of suppressing the manufacture of oleomargarine, wholly in the interest of maintaining the price of butter as against the needs of the consumer. For such taxation there can be no possible excuse. It is practically highway robbery on the part of the Government; or if the Government is justified in charging such a premium for manufacturing or dealing in oleomargarine, then the license fixed for liquor dealers was designed by its smallness to put a premium upon the manufacture and sale of whiskey, with all of the accursed results which have followed that industry.

## HOW THE COTTON GROWER CAN NOW HELP HIMSELF.

MR. W. B. YEARY of Farmersville, Tex., referring to the report of the committee recently appointed to investigate the cost of producing cotton in Texas, writes the MANUFACTURERS RECORD: "It is not the policy of the committee of the farmers to depend upon the National Government for any aid in stabilizing the price of cotton."

Mr. Yeary adds that as chairman of the committee he will give the commissioners' plan of operation, which is as follows:

"He has several thousand local organizations of farmers in the State, composed of from 25 to 200 members each. He also has a score or two of traveling organizers and lecturers. It is his purpose, beginning September 1, to appeal to the farmers of the State, through its representatives and the press, to hold their cotton for the minimum price, and to be guided by the further report of the committee, which will meet monthly or oftener. He expects to have his organizations materially increased, both in number and in the number of members in each. Each local organization will not have to hold much cotton to have a decided effect on future speculation.

"Texas now has a supply of warehouses," Mr. Yeary continues, "and those farmers who are in debt will be requested to place their bales of cotton in the warehouses and turn the receipts, as collateral, over to those whom they owe. The latter will go to Reserve Bank through their local bank and get such money as they will need.

"We feel that the Government has done enough for the cotton farmers by placing plenty of money

at their disposal to enable them to hold it off the market and market it as the demand calls for it at a profitable price. The next move is that of the farmer, using the means at his disposal and using business judgment in pricing and marketing. This places the cotton, wheat or corn grower, those producing non-perishable products, on the same basis as the manufacturer, who has his warehouses and money available to prevent forced or sacrificed sale of his products. There is considerable difference in depending upon another and in doing what is needed ourselves."

The MANUFACTURERS RECORD is glad to give publicity to this interesting statement from Mr. Yeary. If the farmers throughout the entire cotton-growing regions will recognize their opportunity to market their cotton slowly, and not, as in former years, rush it upon the market, they will be able to maintain a good, profitable price for this great world-needed staple.

With the opportunity now open to them of handling cotton on warehouse receipts, for which we have been contending for 20 years or more, the cotton grower is in a much better position than ever before in the history of the industry to protect himself.

## AMERICA'S RELATION

to the

## WORLD WAR

Shall Our Nation Live or Perish?

As viewed by the Editor  
of the  
Manufacturers Record

Published in pamphlet form, in  
response to numerous requests

TEN CENTS PER COPY

See Advertisement on Page 79

## PROSPERITY REFLECTED IN GROWTH OF BANKING FACILITIES.

A COMPARATIVE statement issued from the office of the Comptroller of the Currency, showing the number of new national bank charters, and also the capital increases of national banks for the two months' period ended August 31, reveals a considerable increase in the general prosperity of national banks throughout the country as contrasted with the corresponding months of last year. It reveals that during July and August this year there were 40 applications for charters for new national banks, as compared with 28 applications in the same months of 1916. Charters granted during these two months of 1917 also numbered 40, with aggregate capital of \$4,045,000, as compared with 26, with aggregate capital of \$1,895,000, in the same months a year ago.

Indicative of the growth of business and prosperity of national banks now is the report on increases of capital of previously-established institutions. In the two months of this new banking year 30 banks increased their capital by an aggregate of \$4,710,000, while last year in the same two months only 17 national banks increased their capital, and the ag-

gregate was but \$1,765,000. Furthermore, there were no reductions of capital this year, while last year in the same period four banks reduced capital by a total of \$332,500. Fewer national banks went into voluntary liquidation this year than last, the respective figures being 7 and 16. This does not include banks which consolidated with other national banks. Charters were refused for five national banks; last year in the same time only two charters were refused.

All of this data displays the activity of banking among members of the national banking system, and it also shows the general business prosperity prevailing by the evident need for more banking concerns in new sections, and also for more banking capital.

## NO PEACE PACT WITH RAVISHERS AND MURDERERS.

THE position of the MANUFACTURERS RECORD, that "peace without punishment would be a premium upon crime," and that this Government cannot afford to treat with such unscrupulous murderers as the rulers of Germany, finds strong endorsement in the weekly letter of J. S. Bache & Co., a great banking-house of New York, which justly characterizes German rulers. In this statement Bache & Co. say:

The President has dictated the only terms upon which Germany may negotiate for peace, namely, through some instrumentality actually representing the will and purpose of the German people themselves. We may now expect to see the "ruthless masters of those people" intriguing to build up a man of straw to look like what the President demands, but operated by the same cruel, unjust, dishonest and blood-thirsty barbarian power which has deluged the whole world in blood—"not the blood of soldiers only, but the blood of innocent women and children also, and of the helpless poor."

For these same masters are desperately eager for peace. "Balked but not defeated, the enemy of four-fifths of the world," they are nevertheless feeling the moral pressure of the enmity of that great four-fifths. They see certain defeat in the end, with now America's inexhaustible millions in man-power and billions in money-power ranged against them. And they are employing every device, by hook or by crook, to bring about a cessation and so to retain a part of their brutal seizures and save their own existence.

We may therefore expect to see these matters of intrigue underhandedly appearing to consent to a certain form of popular control through the Reichstag in order to bring about negotiations according to President Wilson's dictates.

We do not believe this will deceive either the Entente or the President. It would seem as though in dealing with such a combination there were only one safe way to permanent preservation of civilization and liberty of the rest of the world, and that way was through the complete and drastic defeat and subjugation of Germany.

Such a defeat is now in process of being worked out on the western front and by Italy. And is insured, however long it may take, by the enormous mobilization of American men, American money and munitions, and American ships and aeroplanes, coupled with the determination of the President, backed by the whole American nation, to see the thing through to victory.

## HOW IT BRINGS BUYERS AND SELLERS TOGETHER.

GEORGIA CHAMBER OF COMMERCE.

Atlanta, Ga., September 1.

Editor Manufacturers Record:

The value of the MANUFACTURERS RECORD is being demonstrated to this organization almost every day. Recently, while working on the development of limestone in the State of Georgia for agricultural purposes, we wished to get in touch with manufacturers of pulverizing machinery. We simply looked up the various advertisers in the MANUFACTURERS RECORD, and are now in touch with machinery people to our entire satisfaction.

This last week the organization received a call from Mr. George Allen Hubbard, president of the Lincoln Memorial University, Cumberland Gap, Tenn., who stated to the secretary that he was in the market for wood pipe for a water system for their university. Various people were called on, but specific information could not be gotten as to the manufacturers of wood pipe. By reference to the issue of August 23 of the MANUFACTURERS RECORD the information was secured from the advertisements thereof.

GEORGIA CHAMBER OF COMMERCE.

G. V. KELLEY,

Assistant Secretary.

## Production the Supreme Need of America, with Prices as Secondary Consideration.

Charlotte, N. C., September 3, 1917.

### Editor Manufacturers Record:

The writer is one of your many enthusiastic readers and knows of no other paper that is putting forth as much good, sound and fearless talk for the benefit of our country; however, he noticed in your August 30 issue an article headed "Price Fixing Economically Unsound and Destined to Handicap Us in War," and in this case he believes you are wrong in saying that there should not be any price fixing. Undoubtedly, price fixing is a hard and uncertain task if an attempt is made to cut too close to the cost mark, and, of course, this should not be done. Generous allowances must be made for fluctuating costs, and then again generous profits allowed on top of these generous costs to provide for upkeep, expansion and dividends in order to stimulate business in such times of world war; but, there is always a limit to all things, and in some things we have already passed the limit.

It is noticeable that all the papers have been urging the Government to reduce the high price of white print paper. In the field of iron and its products, which is the largest single material that effects the war program, we find prices raised beyond the dreams of any man. In the structural steel class, which is highly important to the development of every community throughout our big country, we find jobbing prices raised from around 1½ cents per pound to from 5½ cents to 11 cents per pound, depending upon what particular shape you may want, as there is no common level for all the different shapes at this time.

These prices, running from 350 per cent. to 700 per cent. higher than prices existing before the war, are hardly justifiable. Undoubtedly, the most of us believe in making all there is to be made out of a business, and while we were neutral, perhaps there was some reason in raising prices to such unheard-of or undreamt-of heights, when the war countries were on their knees begging for preference; but now that we are brothers in war, fighting the common foe, is there any justifiable reason why these prices should be maintained, or probably increased? Can anyone show it through cost records?

Such tremendous price advances can hardly be defended under any circumstances, although some might say that it would not matter quite so much if they only affected war materials which could then be taxed heavily, which is also very questionable; but the fact remains that these fabulous prices are hurting other lines of business. You rightly advocate the pushing of all lines of business in order to keep things booming all over the country so as to derive funds with which to keep up the war, but who wants to do any building of stores, banks, schools, hotels, office buildings, homes, etc., with steel averaging 500 per cent. higher than in normal times? Men must have work now more than ever, as the cost of living has about doubled, but if building materials do not come down there will be a lot of mechanics idle this winter and next summer also. This is also true of the smaller machine shops and foundries scattered throughout the country and away from the large centers, who are dependent on the general trade.

As the writer sees it, there is still a greater problem arising in the way of an adjustment of food-stuff prices and the general cost of living, as against wages and salaries. Great advances have been going on gradually with our food stuffs, the bare necessities of life, until we now find that we are paying, on the average, twice as much as we did before the war. The worst has not come either, for if the Government does not take this matter in hand rigorously we will soon be paying three, and probably four, times as much with winter coming on.

To bring to a shorter close what could be made a great, long discussion of such a subject, the writer sees only one of two remedies for this situation, and begs to ask which of the two is the better for our entire people now and after the war: to raise wages and salaries in proportion to the increases of, we will say, the necessities of life, which would mean to nearly double them, or control prices so as to enable the common people, the great masses, to live on their present wages and salaries?

Think of the great mass of salaried people who have not received a single raise since this war started. Where shops are humming with high-priced war orders and camps are being built by the Government, wages have been advanced considerably, and often prices for food stuffs are even raised still higher at these places, but salaries never. The salaried class, a vast army of our hardest working and most enlightened people, should receive very careful consideration, as they have no means of protecting themselves through organization, as have the different trades through their unions.

It seems that "Government control" of price fixing, if only on the more important necessities, is the better of the two remedies, as it is more practical to control prices than wages and salaries. It is practical to fix prices of articles for sale within a reasonable limit, but who would be willing to say that the Government or anyone else could as easily fix the raising of salaries throughout the entire land?

From this viewpoint, what is your opinion as to the solution of this problem, which it seems, must be met and solved if the war keeps up?

Looked at from one point of view, the foregoing letter would seem to be an argument in favor of price fixing. Nevertheless, we cannot at all agree with our correspondent that price fixing will meet

the situation. There are many unfortunate inequalities in world affairs at present as between different classes of people which no power of the Government can change, any more than the power of Government can over night cause war to cease.

The MANUFACTURERS RECORD would gladly see all prices regulated to the minimum, with a narrow margin of profit for the producers, if in the long run this would benefit the country and help to win the war; but some study of such problems makes us absolutely certain that price fixing, whether the maximum be high or low, will not produce the desired results.

If the price be by law fixed high enough to leave a large margin of profit, the consumer will antagonize the Government and claim that it is dominated by these protected interests, whether they be the growers of wheat and corn or cotton or the producers of coal, iron and steel and other much-needed products.

Our correspondent says, "It is noticeable that all the papers have been urging the Government to reduce the high price of white print paper." The MANUFACTURERS RECORD is an exception to this. It has not only not advocated that the Government should do this, but it has distinctly urged that the Government should not do so, believing that the price of paper should be left to be regulated by the law of supply and demand. We are paying 100 per cent. and more for paper above the price paid a year or two ago. It is an exceedingly heavy burden, hard to bear, but if we knew that the Government could cut the price to the figure prevailing before the war, to our great personal profit, we would still oppose its doing so, since we believe the principle is not sound and is in the long run injurious.

The price of coal may look very attractive to the consumer when fixed at \$2 a ton, but the consumer would much prefer to get actual coal at \$3 to \$4 a ton than merely to find the price at \$2 a ton without being able to get the coal.

It is not humanly possible at a price of \$2 a ton, even if that leaves a large profit to well-managed coal companies, to increase the coal production sufficient to meet the actual present needs of the railroads and the industrial and other interests, and to help to supply the Allies. Nothing on earth but the temptation of the possibility of exorbitant prices in coal would cause men to take the speculative chance of opening up new coal mines or cause existing plants to largely increase their output.

**The supreme question is one of quantity, and not the price to be paid.**

The demand for coal far exceeds the total capacity of all existing coal mines, but during the last 12 months of steady advance on price of coal men have gone into new coal-mining operations with almost feverish activity, and hundreds of new coal operations have been started throughout the South, based wholly on the speculative possibilities of big profits; but none of these operations would have been started had there been any thought that the Government would fix the maximum price of coal, nor will other coal-mining operations be undertaken to any large extent so long as the coal price is regulated by the Government, even though it be a price which leaves a good profit to the big concerns, but little or no profit to smaller or less well-managed enterprises.

The country is not so much concerned as to whether every coal mine is being managed as efficiently as possible as it is that the coal is actually being dug out of the ground and furnished to the market, and coal is probably the most easily regulated of all great commodities. It is a primary product on which a fixed price can be placed with less difficulty than upon almost any other great product which enters into world trade, and upon which our ability to maintain the war is based, and yet the Government already realizes that the output is so much below the demand that it is now giving its attention to urging people to use as little coal as possible. How much more effective in the

long run would be a tremendous increase in production because of high prices than a famine because of prices named by the Government.

In iron and steel there is a great shortage as compared with the demand. Even now it is thought by many that the Government will have to appoint a steel administrator for the express purpose of turning the steel production into such lines as are absolutely essential to the building of ships and to other work connected with the war. It has been proposed—and indeed urged in one of the leading papers of the East—that the steel which now goes into other than war purposes shall be cut out entirely by the Government and all be forced into the things which make for war, utterly regardless of the needs of independent consumers of steel. It is not to be imagined for a moment that the vast capital needed for the building of new steel plants can be found while conditions such as these prevail, nor will existing concerns, however large may have been their earnings in the past, feel disposed to put all of their surplus earnings into extensions unless they, too, have the temptation of possible large earnings and unhampered control of operations.

It would be far preferable to have all the steel that is needed—and the same is true of iron—at a high price than not to have sufficient for the actual needs of war purposes, much less for ordinary industrial pursuits.

There is a great problem, as our correspondent says, in regard to foodstuffs, but the Government cannot possibly regulate the cost of food without leaving a margin of profit so great to the producer as to make the consumer mad, or else make the profit to the consumer so small as to cause a steady decrease in the output of foodstuffs. Mr. Herbert Hoover, Food Administrator, after a very careful study of the meat situation, has clearly stated that it is not possible to regulate the price of meat. He has seen the inevitable situation that meat prices must continue high for years to come, because of the great decrease in the world's supply of meat animals. More than 10 years ago the MANUFACTURERS RECORD persistently pointed out the danger in this country of a steadily-decreasing supply of livestock and an inevitable increase in prices. Any student of affairs who cared to take the trouble could any time within the last 10 years have foreseen the present steadily-advancing cost of meats without any regard to the possibility of the war. The war has merely intensified a situation which was becoming acute even before Germany entered upon its ruthless, murderous campaign. If the Government cannot attempt to regulate meat prices because the demand exceeds the supply, how can it regulate coal prices where exactly similar conditions exist?

In order to make sure of an adequate supply of wheat, without which the Allies would starve and the war would be lost, the Government has made a minimum price for the wheat crop, even for next year's yield, at a figure which a few years ago would have been considered exorbitant; but this price is fully justified by the conditions which now prevail, and there is no power on earth which can increase our supply of wheat by lessening the price of flour to the consumer below the cost based on the minimum price of wheat already guaranteed by the Government. The Government has guaranteed to wheat growers a minimum price for next year's product of \$2 a bushel. No one knows what the maximum price may be, but the farmer at least is absolutely assured of \$2, whereas a few years ago wheat growers regarded themselves as exceedingly lucky and blessed beyond the average man if they got \$1 for wheat.

We do not believe it possible, therefore, for the Government to regulate the prices of things in general, and the moment it undertakes to put maximum prices on important products, as it has done on coal, instead of minimum prices, as it has done on wheat, it will bring about a decrease in output unless its maximum prices are so high as to create a spirit of hostility on the part of the consumers and cause them to claim that "big business" controls the Government. And even an agitation of that kind would be worse than unrestricted prices.

**The supreme need in this country and of all civilization is to increase the output by such a stimulation of production that eventually our out-**

put will exceed the demand, and we shall then find the lower level of prices based on the fundamental law of supply and demand.

We do not believe in the suggestion of our correspondent that the Government should dictate the salaries of employed men, whether in clerical positions or as day laborers or mechanics. These tremendous problems are things which cannot be solved by Government action. Our correspondent, as many others, has failed to recognize that in all human history there has been no period comparable to this in which we are living. The awful tragedies of the hour cause everything in human history, outside of Calvary itself, to seem insignificant. We can no more expect to do business in the same way as formerly and no more expect to live with the same degree of comfort based on fixed incomes or salaries as in the past than the soldier can expect that he is to be carried in Pullman cars and be fed on the fat of the land and safeguarded from every danger.

The life of the soldier, with all of its hardships, with the terrific struggle which he constantly faces, with the daily work from early morning until late at night, training under a most driving system, that he may be fitted for war, is typical of the conditions which in private life we must all face, and we must face them as heroically and as bravely as the soldier faces his hardships. In no other way is it possible for the nation to put itself in shape to fight this great world struggle.

It is proper that every phase of economic activity should be studied and discussed. It is proper that correspondents like the one from whom we have quoted should look into every phase of business conditions, of high prices or low prices, of high wages or low wages; but these problems must all be studied, not from the viewpoint of our own individual wishes or what concerns our own individual prosperity, or even our ability to continue business, but in the light of whether the things we want are the things which in the long run will best serve the nation in its great struggle to save itself and save the world.

#### DISASTERS THAT WOULD COME FROM TAXING THE RICH TO DEATH.

TO finance the war a great revenue measure is before Congress. While every loyal American expects to pay, and that cheerfully, income tax and all other taxes that are equitably and impartially levied, this vitally-important tax bill has been held up by extremists like Hiram Johnson, Vardaman, La Follette, et al., whose expressed purpose is to squeeze out in one process the major portion of the incomes accruing to men of large means, somewhat as if there were to be at one operation a final division of amassed wealth. In the clamor that where there is conscription of men there must be conscription of wealth, there is no recognition given to the fundamental difference in the cases.

When an individual joins the army he has in that action completed the full measure of the service he can render. In becoming a soldier he has exhausted his power to aid his country. He has made the supreme sacrifice, and this is an act he can perform but once. Wealth, however, if permitted to exist, will continue to reproduce like the harvests of the earth, and contribute perpetually to the country's needs, to the support of the armies in the field, to the purchase of the food, clothing and munitions which must go forward in an unending stream to make the fighters at the front an effective force. To cripple the productive power of industry and commerce would be to cripple the strength of the soldiers in the ranks—a truism so obvious as to leave no room for argument. The people who *have* must pay the enormous costs of this war, and the payments must continue for an indefinite period of time, even should the war end within a year.

There is also a further disastrous side to the mischievous activities of the baiters of wealth. As the New Orleans Times-Picayune well points out, were these extremists to have their way, there would be a complete breakdown in the work of the

churches, the universities and the philanthropic and charitable institutions of the land. Says the Times-Picayune:

Senators of the La Follette type talk about bleeding the plutocrats white, as if the process were as simple as the rule-of-three, though economists understand that the process would bring utterly unexpected results. The plutocrat would know the worst that could befall him, but institutions which have largely depended upon his bounty would find themselves on the rocks.

For it is a matter of record that American churches, universities, colleges and charities receive vast sums of money in the shape of gifts and bequests. In some instances these gifts and bequests are due to native goodness of heart; in other cases—in the majority, perhaps—the gifts and bequests are due to a social pressure which has become almost irresistible of late. Mr. Carnegie indicated the intensity of this pressure when he declared that overflowing wealth is a disgrace. Be the impulse what it may, its consequences are plain. America has outdistanced the richest lands of the Old World as regards the sums annually devoted to educational, charitable and religious purposes by private benefactors.

But our educational, religious and charitable institutions must cast about for new sources of support if Congress bleeds the rich white. With his income cut in half by the supertax, the multi-millionaire must retrench, since churches, universities and hospitals constitute by no means the only calls upon his benevolence. This is no valid argument against the most drastic taxation of the rich, if the Government stands ready to fill the void which such taxation is sure to create. But will the Government fill the void? That is the problem which has not been broached in either house of Congress, so far as we read.

It is easy to say: "Tax the rich to death and let the churches, etc., shift for themselves as best they can." This policy might "pan out" in the long run, but a tremendous dislocation of the country's higher life must meanwhile occur. Such considerations never daunt men of one idea, but they always daunt reformers, who do not fancy burning the house to roast the pig.

The situation demonstrates anew the danger of putting freaks and harebrains in positions of power. Unbalanced, erratic and violent have been "the little group of willful men" from the time they broke through the obscurity of their early days. Vehement, voluble, vagarious, they have blasted a path of destruction, in so far as in them lay, all along the road by which they have come. Never safe nor sound, the rickety character, like the rickety boat, may be counted on to go to pieces in the stress of a storm, carrying those dependent on them down to shipwreck and death. To the "rickety boats" in Congress will be attributed the needless sacrifice of human lives on the battlefields, the prolongation of the awful struggle and interference with the fullest productive capacity of those who must provide the nation with the sinews of war.

May the country hope that a lesson has been learned by the voters of the land, and that the doom of the slacker and the unpatriotic has been sealed? "Turn the rascals out!" should again become the slogan of the day.

#### MAN CAN EAT THE SHARK.

NOW comes Russell J. Coles of Danville, Va., at a time when the country is wondering how it is going to get enough and a satisfactory variety of food at not too unreasonable prices during the winter, and vouches for assertions hitherto made that sharks are good to eat; in fact, that some of them are very good for food. He also says that the sea contains many varieties of edible fish thus far not used on the table. The New York Times remarks that Mr. Coles is a baiter of big game fish, and that he was the companion of Colonel Roosevelt on his shark-hunting expedition last spring, thereby indicating that he knows what he is talking about.

Mr. Coles, in discussing the subject of seafood, recites that the shark abounds in a number of varieties, and that only one of them, the white shark, has ever been known to attack human beings. Most of them subsist on other fish. The hammerhead shark, so called by the peculiar formation of his head, lives mainly on Spanish mackerel, so that if folks took to catching and eating hammerhead sharks, they would not only have another food fish for their tables, but they would conserve the supply of Spanish mackerel, thus increasing in two ways the food supply, at least so far as fish goes. He observes that for years several kinds of shark have been eaten at Charleston, S. C., and on the California coast. Some kinds of shark meat have

to be prepared so as to remove a strong flavor which distinguishes them, but as there are other fishes as well as other kinds of food which have to be specially treated before eating, this would not form any real ground for objection to using sharks as food.

It is known that shark hide makes good, strong leather, and it is disclosed that the livers of sharks yield an oil of superior quality, which may be used like cod-liver oil.

All this is very excellent, and if it can be generally demonstrated by experiment that the idea of shark eating can be made popular and agreeable, a great lift will be given to the food supply. It is certainly a much nicer thing to discover that man can eat the shark instead of the shark eating the man, as has been the procedure in the past.

#### CAN THE WAR LAST, AND HOW MANY ARE BEING KILLED?

[MANUFACTURERS RECORD, October 1, 1914.]

AT the time of the Civil War the South's population was about 10,000,000 out of a total in the country of 30,000,000. Of these 10,000,000 approximately 6,000,000 were whites and 4,000,000 blacks. At the beginning of the war the South was without a navy or an army, without organized government, without any monetary system and without any method for raising money by taxation or otherwise. A government had to be created, a system of taxation established, an army had to be raised and equipped, and some method had to be devised for organizing the finances of a government whose ports were all blockaded and which, therefore, had no means of exporting its chief product—cotton.

On the other hand, the North had an established government, an army and a navy, its ports were open to the world, it had vast manufacturing interests and all the other advantages of a completely organized system of government as compared with the difficulty of creating a new government. It had three and one-third times as many white people as the South. It, therefore, had three and one-third times as large resources to draw upon for its fighting men. Its advantages in other respects were even greater than the three and one-third times the difference of white population.

Notwithstanding this disparity, the South maintained its fight for four years.

How long can Germany and Austria, if they are driven back from France, maintain themselves against Russia, England, France and Belgium? The Allies cannot bring against Germany and Austria from their European possessions any such preponderating number of population as the United States was able to bring against the South. They cannot bring so great an advantage against Germany and Austria in wealth, in commerce and in a navy as that which the North had in comparison with the South.

These facts are mentioned not with a view to raising any question as to the struggle made by the South, but as a side light on whether Germany and Austria could, if they were invaded, maintain relatively such a struggle as that which the South maintained for four years, and, if so, what would be its world effect. It has been repeatedly said that it would not be possible to finance a long war, but the South, without money, except that turned out by its printing presses, succeeded in financing a war for four years, and when a nation is struggling for what it believes to be its very existence its people can keep on fighting for a long time beyond the period at which bankers from their viewpoint would think it possible.

If, on the other hand, Germany and Austria should for a time prove to be winners, it is not conceivable that they could invade Russia, England, France and Belgium to the point where these countries would be compelled to submit, certainly without years of fighting.

Three years ago, when this editorial was published, it was ridiculed by some newspapers as suggesting an impossibility. This war, they said, could not possibly last for several years, and many financiers and business men said the same; but the war has lasted, as suggested by the MANUFACTURERS RECORD it would do.

#### SULPHUR AND THE FOOD SUPPLY.

MR. J. FORDYCE BALFOUR of Everslee, Scotland, in a letter to Mr. Courtney De Kalk about the use of sulphur as a fertilizer, writes:

"Your article, 'Sulphur and the Food Supply', has been brought to the notice of our agricultural experimenters here. It has caused a bit of a sensation. When once we begin on the problem it won't be long before we are leading the way. Part of the criticism was on the small size of the best plots, as shown in the photographs. Testing in this country would be on areas of not less than 25 acres, with check areas of similar size. It's a great pity we have no deposits of gypsum impregnated with sulphur."

## According to Mr. J. H. Collier of Memphis, Our Editorials Are "Low," "Vituperative," "Undignified," and "Engender Harmful Animosity," and Should Be Such as to "Soften the Bitterness of Defeat" to Germans.

SOUTHERN BOILER AND TANK WORKS,  
Memphis, Tenn., September 4, 1917.

Editor Manufacturers Record:

Possibly you have not seen the enclosed article by Mr. Howard H. Gross, as I do not recall having seen it reproduced in your paper. It is directly to the point and shows clearly what must be done and done speedily. Your articles would carry a great deal more weight if written along the line that Mr. Gross has chosen.

I regret to see you select such low levels of vituperation as the spirit in which practically all your editorials are written. The front cover of your last edition was especially bad, undignified, and only engenders harmful animosity that should not exist. The war must be prosecuted vigorously and victory for us assured as quickly as possible. But it will end some day, and we should conduct ourselves so that when peace comes the bitterness of defeat will be softened by the knowledge of our antagonists that what we have done was done because we were sure we were right and that there was no hatred in our hearts.

I am sure you will do the country a greater service if your editorial policy is changed.

J. H. COLLIER.

1616 Linden Ave.

We are compelled to decline to follow Mr. Collier's suggestion about changing our editorial policy, and some of the reasons therefor may be found in the following reply to his letter:

The MANUFACTURERS RECORD invites criticisms, and therefore it welcomes the foregoing letter from Mr. Collier. Nevertheless, we are forced to say that Mr. Collier has demonstrated an incapacity to think clearly, which is sadly prevailing in this country, though gradually our people are awakening to the fearful curse which was coming upon the nation from the lack of moral perception and backbone. We were growing so accustomed to the unspeakable barbarities of Germany that we were in danger of losing all moral perspective. Our backbones were becoming jelly, and we are afraid that those who looked at the matter from Mr. Collier's viewpoint are in that condition physically and mentally. He is laboring under the delusion that our war upon Germany must be pursued with the gentleness of the cooling dove. It is true we must win the war, according to Mr. Collier, but there must be no "bitterness" in our hearts. Away with such sentimental, weak-brained, weak morality. It matters not who gives voice to it!

If the people of this country could face the awful realities of the destruction wrought by Germany upon individuals and nations, the murder of innocent women and children, the unspeakable outraging of women, which has blackened the pages of human history as never before since man was created; the bombing of hospitals and the killing of the wounded therein, the death wrought upon the workers of the Red Cross, the submerging of hospital ships, and all the long roll of horrors which have come from hell itself, and still have anything but bitter, determined, relentless hatred in their hearts for such crimes, they would prove themselves unworthy to be called men and women.

We take it from his letter that Mr. Collier (and we publish his letter only because perchance there may be someone else who is of his way of thinking, though we trust that this country has not more than one man feeling that way) has no hatred in his heart for such atrocities, or else he would not object to the bitter, burning denunciation of such crimes. We do not want to see the "bitterness of Germany's defeat" "softened" by any knowledge that we are weak-minded, weak-hearted or weak of backbone, or weak of moral force. We want Germany and all Germans to realize to the depth of "bitterness" that for centuries to come the name "German" will be a hissing and a by-word in all civilization, and that for centuries to come humanity will shudder as it thinks of the awful crimes wrought by the Germans, not by individuals here and there only, but by the German Government and by the people of Germany as a whole.

Germany has been mad with the war spirit; for

generations its people had been taught "frightfulness." Its army officers and its philosophers had taught "frightfulness," and the full fruitions of their teachings are seen in the murdering of the innocent people on the Lusitania; in the murdering of people sent down without a word of warning in other ships; in the outrages upon women, a thousand times worse than murder; in the murdering of innocent children. All of these things are but the exact fulfillment of what German military leaders and philosophers had for years been teaching long before the war. They told the people that "frightfulness" must, of necessity, be part of the next war. They told the people that Germany must struggle for world domination. They preached the doctrine of the destruction or deportation of the people in captured territory and the filling of these regions with Germans. These are the doctrines which have been to the front in Germany, not merely since the war, but unceasingly for the last 30 or 40 years. The record of German teachings in these respects is as black as the record of the fulfillment in German acts. If Mr. Collier wants to count such criminals as friends, if he wants to have no burning moral indignation against them, if he wants to save them from any "bitterness of defeat," that their defeat may be "softened," then Mr. Collier is not likely to be very vigorous and active in the only kind of fight which will save this nation from suffering as Belgium and France have suffered. And, thank God, the number of Americans who hold such views is rapidly diminishing to the vanishing point.

We do not know Mr. Collier. He writes on the letterhead of the Southern Boiler & Tank Works, but his name does not appear as one of the officers. Nevertheless, we are glad to give him this space, because his letter merely gives us another chance to seek to arouse this country and the men and women in it to the unspeakable folly of trying to cultivate a sickly, sentimental spirit of gush in regard to Germany and the war in which we have engaged.

We are making a life-and-death struggle for ourselves, for the women and children of this country, that they may be saved from the awful wreck and ruin, a thousand times worse, yes, infinitely worse, than death itself; but Mr. Collier wants us to deal gently with these outragers and murderers; he wants us to have no hatred in our hearts for them; he wants the "bitterness of their defeat" to be "softened," and therefore he suggests to us that the MANUFACTURERS RECORD would have far more weight if its editorials "were written in a different spirit"; if they were less strongly expressed, and therefore soft and gushy. He objects to what he calls our "undignified" editorials, which "engender harmful animosity."

We are doing the best we can to create a living, breathing animosity, an animosity which will stir the life blood in every man whose blood runs red with humanity; in every man who honors womanhood and loves children; in every man who has the moral and the mental backbone to stand for the right, though the heavens fall; in every man who is ready to save this country from the full fruition of rape and murder, individually and nationally, which can be made possible only through the crushing defeat on the battlefields of Europe of the Hell-born and Hell-guided powers of Germany and its allies. Is this "soft" enough to suit Mr. Collier?

### A PRESSING NEED.

PAUL WATSON, Galveston, engineer and selling agent of Texas for the French Oil Mill Machinery Co., in a letter dated August 31, writes:

Will you ever get your Director of Public Safety? It would fill a long-felt want. There is one man who could fill it and have the confidence of the people; you have named him.

### LESS DOGS—MORE SHEEP.

EVIDENCE is still being accumulated against the worthless, sheep-killing dogs that are allowed to roam, uncontrolled by adequate laws, throughout the country, destroying sheep, sucking eggs and killing chickens, spreading disease and consuming enough food, even if it consists largely of scraps and leftovers from the kitchen, to feed hogs and chickens by the thousands. Almost daily the papers of the country contain reports of the killing of sheep by dogs, in some instances one or two sheep, and in others as many as 50 sheep in one night from a single flock, which in the aggregate not only shows a large loss in the number actually destroyed in this manner, but in the effect that this has on the whole sheep industry in causing farmers and growers to hesitate about raising sheep and establishing new flocks.

The MANUFACTURERS RECORD has from time to time called attention to the ravages of the uncensored, uncontrolled, wandering curs and the damage they have done and are continuing to do to the South's sheep industry. And from time to time we have republished accounts of the destruction of sheep by dogs in various parts of the country, which shows how the movement to protect an industry which gives both food and raiment to mankind is gaining favor with lawmakers and thinking people.

In the September 1 issue of the Extension Farm News, issued by the North Carolina Agricultural College and co-operating bodies, a North Carolina farmer, writing to a wool manufacturer regarding his own and his neighbors' sad experiences with sheep-killing dogs, says:

We are in trouble. We have always been raising sheep, but the dogs have been in our flock and have destroyed the whole flock, and every sheep raiser in eight miles has asked me to write you and ask you to please try to get a State-wide law passed to put a tax of \$25 apiece on all male dogs and \$50 apiece on all females. I have seen in the paper where 5000 other farmers have also asked for protection for their sheep.

I have heard people say that they wanted to wear woolen goods, but they could not if the dogs killed the sheep all over the country like they have here. We have had 100 head of sheep killed, and have finally been broken up. We are trusting in the Lord that you will make that law for our and your benefit, so please write us soon and tell us what can be done.

On the same day, September 1, under the title, "Let's Have Sheep by Getting Rid of Curs," the Birmingham Ledger editorially commented on the activities of sheep-killing dogs and the harm they are doing in stifling sheep growing in the South, and suggested the following:

Progressive Alabama farmers, of whom the number is rapidly increasing, are more than anxious to raise sheep. This cannot be done with financial success so long as the cur dog wanders about and deals death in the sheepfold. The climate is here, the food is here, all the conditions needed to raise sheep at minimum cost; the dog alone stands in the way.

The Ledger has this suggestion to make: That the Auburn Institute, Farmers' Alliance and the Progressive Farmer undertake a systematic campaign of education on the evil of the cur dog and agree upon an adequate dog law, which they will untiedly present to the next Legislature and press for adoption. The campaign of education will serve to establish public opinion in rural districts and a united front in the name of the farmers and in their behalf will ensure a dog law that will mean the obliteration of the worthless cur and the rehabilitation of the sheep industry.

### A BOSTON VIEW.

[From MANUFACTURERS RECORD of September 6.]

LET the reptile press and the hyphenated seditious have their say while the saying is good. The first headline that tells of American casualties abroad will put a muzzle on them so tight that, please God, it won't be pried off in a thousand years.—Boston Transcript.

And we won't have long to wait.

We did not have long to wait, for on the eighth this country learned that an American hospital in France had been bombed by Germans and several Americans killed. Not content with outraging women and murdering babies, Germany now delights to wreak its hatred upon the wounded and the Red Cross nurses. May Heaven save American Red Cross nurses from being captured by Germans!

## HOW THE UNITED STATES GOVERNMENT FAVORS WHISKEY AND BEER IN PREFERENCE TO A WHOLESOME COTTONSEED-OIL PRODUCT.

THE United States Government charges an annual internal revenue license tax of \$50 to brewers of less than 500 barrels of beer a year and \$100 to brewers of more than 500 barrels.

The license tax for distillers is \$100 if they make less than 500 barrels of whiskey per year and \$200 if they make more than 500 barrels.

A wholesale liquor dealer pays a license of \$100 and a retail liquor dealer a tax of \$25.

The man who dares, however, to manufacture oleomargarine, a healthy food product which sustains nature, while whiskey destroys body and soul, must pay an internal revenue tax of \$600 a year, or \$400 more than the biggest distiller. It matters not how small may be the factory producing oleomargarine, the Government license is \$600 a year, or three times as much as that of the biggest maker of whiskey.

A wholesale dealer in uncolored oleomargarine must pay \$200 a year, or twice as much as the wholesale whiskey dealer. The wholesale dealer in colored oleomargarine is taxed \$480 a year for the privilege of handling this food product, or nearly five times as much as the wholesale whiskey dealer is charged for selling his vile product.

The retail dealer in colored oleomargarine is charged \$48 a year by the Government for the privilege tax in furnishing to his customers a wholesome food product. The retail liquor dealer gets off with \$25 a year.

These figures give some indication of the spirit which prompted the passage through Congress of the measures designed for the express purpose of suppressing the manufacture of oleomargarine, wholly in the interest of maintaining the price of butter as against the needs of the consumer. For such taxation there can be no possible excuse. It is practically highway robbery on the part of the Government; or if the Government is justified in charging such a premium for manufacturing or dealing in oleomargarine, then the license fixed for liquor dealers was designed by its smallness to put a premium upon the manufacture and sale of whiskey, with all of the accursed results which have followed that industry.

## HOW THE COTTON GROWER CAN NOW HELP HIMSELF.

MR. W. B. YEARY of Farmersville, Tex., referring to the report of the committee recently appointed to investigate the cost of producing cotton in Texas, writes the MANUFACTURERS RECORD: "It is not the policy of the committee of the farmers to depend upon the National Government for any aid in stabilizing the price of cotton."

Mr. Yeary adds that as chairman of the committee he will give the commissioners' plan of operation, which is as follows:

"He has several thousand local organizations of farmers in the State, composed of from 25 to 200 members each. He also has a score or two of traveling organizers and lecturers. It is his purpose, beginning September 1, to appeal to the farmers of the State, through its representatives and the press, to hold their cotton for the minimum price, and to be guided by the further report of the committee, which will meet monthly or oftener. He expects to have his organizations materially increased, both in number and in the number of members in each. Each local organization will not have to hold much cotton to have a decided effect on future speculation.

"Texas now has a supply of warehouses," Mr. Yeary continues, "and those farmers who are in debt will be requested to place their bales of cotton in the warehouses and turn the receipts, as collateral, over to those whom they owe. The latter will go to Reserve Bank through their local bank and get such money as they will need.

"We feel that the Government has done enough for the cotton farmers by placing plenty of money

at their disposal to enable them to hold it off the market and market it as the demand calls for it at a profitable price. The next move is that of the farmer, using the means at his disposal and using business judgment in pricing and marketing. This places the cotton, wheat or corn grower, those producing non-perishable products, on the same basis as the manufacturer, who has his warehouses and money available to prevent forced or sacrificed sale of his products. There is considerable difference in depending upon another and in doing what is needed ourselves."

The MANUFACTURERS RECORD is glad to give publicity to this interesting statement from Mr. Yeary. If the farmers throughout the entire cotton-growing regions will recognize their opportunity to market their cotton slowly, and not, as in former years, rush it upon the market, they will be able to maintain a good, profitable price for this great world-needed staple.

With the opportunity now open to them of handling cotton on warehouse receipts, for which we have been contending for 20 years or more, the cotton grower is in a much better position than ever before in the history of the industry to protect himself.

## AMERICA'S RELATION

to the

## WORLD WAR

Shall Our Nation Live or Perish?

As viewed by the Editor  
of the  
Manufacturers Record

Published in pamphlet form, in  
response to numerous requests

TEN CENTS PER COPY

See Advertisement on Page 79

## PROSPERITY REFLECTED IN GROWTH OF BANKING FACILITIES.

A COMPARATIVE statement issued from the office of the Comptroller of the Currency, showing the number of new national bank charters, and also the capital increases of national banks for the two months' period ended August 31, reveals a considerable increase in the general prosperity of national banks throughout the country as contrasted with the corresponding months of last year. It reveals that during July and August this year there were 40 applications for charters for new national banks, as compared with 28 applications in the same months of 1916. Charters granted during these two months of 1917 also numbered 40, with aggregate capital of \$4,045,000, as compared with 26, with aggregate capital of \$1,895,000, in the same months a year ago.

Indicative of the growth of business and prosperity of national banks now is the report on increases of capital of previously-established institutions. In the two months of this new banking year 30 banks increased their capital by an aggregate of \$4,710,000, while last year in the same two months only 17 national banks increased their capital, and the ag-

gregate was but \$1,765,000. Furthermore, there were no reductions of capital this year, while last year in the same period four banks reduced capital by a total of \$332,500. Fewer national banks went into voluntary liquidation this year than last, the respective figures being 7 and 16. This does not include banks which consolidated with other national banks. Charters were refused for five national banks; last year in the same time only two charters were refused.

All of this data displays the activity of banking among members of the national banking system, and it also shows the general business prosperity prevailing by the evident need for more banking concerns in new sections, and also for more banking capital.

## NO PEACE PACT WITH RAVISHERS AND MURDERERS.

THE position of the MANUFACTURERS RECORD, that "peace without punishment would be a premium upon crime," and that this Government cannot afford to treat with such unscrupulous murderers as the rulers of Germany, finds strong endorsement in the weekly letter of J. S. Bache & Co., a great banking-house of New York, which justly characterizes German rulers. In this statement Bache & Co. say:

The President has dictated the only terms upon which Germany may negotiate for peace, namely, through some instrumentality actually representing the will and purpose of the German people themselves. We may now expect to see the "ruthless masters of those people" intriguing to build up a man of straw to look like what the President demands, but operated by the same cruel, unjust, dishonest and blood-thirsty barbarian power which has deluged the whole world in blood—"not the blood of soldiers only, but the blood of innocent women and children also, and of the helpless poor."

For these same masters are desperately eager for peace. "Balked but not defeated, the enemy of four-fifths of the world," they are nevertheless feeling the moral pressure of the enmity of that great four-fifths. They see certain defeat in the end, with now America's inexhaustible millions in man-power and billions in money-power ranged against them. And they are employing every device, by hook or by crook, to bring about a cessation and so to retain a part of their brutal seizures and save their own existence.

We may therefore expect to see these matters of intrigue underhandedly appearing to consent to a certain form of popular control through the Reichstag in order to bring about negotiations according to President Wilson's dictates.

We do not believe this will deceive either the Entente or the President. It would seem as though in dealing with such a combination there were only one safe way to permanent preservation of civilization and liberty of the rest of the world, and that way was through the complete and drastic defeat and subjugation of Germany.

Such a defeat is now in process of being worked out on the western front and by Italy. And is insured, however long it may take, by the enormous mobilization of American men, American money and munitions, and American ships and aeroplanes, coupled with the determination of the President, backed by the whole American nation, to see the thing through to victory.

## HOW IT BRINGS BUYERS AND SELLERS TOGETHER.

GEORGIA CHAMBER OF COMMERCE.

Atlanta, Ga., September 1.

Editor Manufacturers Record:

The value of the MANUFACTURERS RECORD is being demonstrated to this organization almost every day. Recently, while working on the development of limestone in the State of Georgia for agricultural purposes, we wished to get in touch with manufacturers of pulverizing machinery. We simply looked up the various advertisers in the MANUFACTURERS RECORD, and are now in touch with machinery people to our entire satisfaction.

This last week the organization received a call from Mr. George Allen Hubbard, president of the Lincoln Memorial University, Cumberland Gap, Tenn., who stated to the secretary that he was in the market for wood pipe for a water system for their university. Various people were called on, but specific information could not be gotten as to the manufacturers of wood pipe. By reference to the issue of August 23 of the MANUFACTURERS RECORD the information was secured from the advertisements thereof.

GEORGIA CHAMBER OF COMMERCE.

G. V. KELLEY,

Assistant Secretary.

## Production the Supreme Need of America, with Prices as Secondary Consideration.

Charlotte, N. C., September 2, 1917.

Editor Manufacturers Record:

The writer is one of your many enthusiastic readers and knows of no other paper that is putting forth as much good, sound and fearless talk for the benefit of our country; however, he noticed in your August 30 issue an article headed "Price Fixing Economically Unsound and Destined to Handicap Us in War," and in this case he believes you are wrong in saying that there should not be any price fixing. Undoubtedly, price fixing is a hard and uncertain task if an attempt is made to cut too close to the cost mark, and, of course, this should not be done. Generous allowances must be made for fluctuating costs, and then again generous profits allowed on top of these generous costs to provide for upkeep, expansion and dividends in order to stimulate business in such times of world war; but, there is always a limit to all things, and in some things we have already passed the limit.

It is noticeable that all the papers have been urging the Government to reduce the high price of white print paper. In the field of iron and its products, which is the largest single material that effects the war program, we find prices raised beyond the dreams of any man. In the structural steel class, which is highly important to the development of every community throughout our big country, we find jobbing prices raised from around 1½ cents per pound to from 5½ cents to 11 cents per pound, depending upon what particular shape you may want, as there is no common level for all the different shapes at this time.

These prices, running from 350 per cent. to 700 per cent. higher than prices existing before the war, are hardly justifiable. Undoubtedly, the most of us believe in making all there is to be made out of a business, and while we were neutral, perhaps there was some reason in raising prices to such unheard-of or undreamt-of heights, when the war countries were on their knees begging for preference; but now that we are brothers in war, fighting the common foe, is there any justifiable reason why these prices should be maintained, or probably increased? Can anyone show it through cost records?

Such tremendous price advances can hardly be defended under any circumstances, although some might say that it would not matter quite so much if they only affected war materials which could then be taxed heavily, which is also very questionable; but the fact remains that these fabulous prices are hurting other lines of business. You rightly advocate the pushing of all lines of business in order to keep things booming all over the country so as to derive funds with which to keep up the war, but who wants to do any building of stores, banks, schools, hotels, office buildings, homes, etc., with steel averaging 500 per cent. higher than in normal times? Men must have work now more than ever, as the cost of living has about doubled, but if building materials do not come down there will be a lot of mechanics idle this winter and next summer also. This is also true of the smaller machine shops and foundries scattered throughout the country and away from the large centers, who are dependent on the general trade.

As the writer sees it, there is still a greater problem arising in the way of an adjustment of food-stuff prices and the general cost of living, as against wages and salaries. Great advances have been going on gradually with our food stuffs, the bare necessities of life, until we now find that we are paying, on the average, twice as much as we did before the war. The worst has not come either, for if the Government does not take this matter in hand vigorously we will soon be paying three, and probably four, times as much with winter coming on.

To bring to a shorter close what could be made a great, long discussion of such a subject, the writer sees only one of two remedies for this situation, and begs to ask which of the two is the better for our entire people now and after the war: to raise wages and salaries in proportion to the increases of, we will say, the necessities of life, which would mean to nearly double them, or control prices so as to enable the common people, the great masses, to live on their present wages and salaries?

Think of the great mass of salaried people who have not received a single raise since this war started. Where shops are humming with high-priced war orders and camps are being built by the Government, wages have been advanced considerably, and often prices for food stuffs are even raised still higher at these places, but salaries never. The salaried class, a vast army of our hardest working and most enlightened people, should receive very careful consideration, as they have no means of protecting themselves through organization, as have the different trades through their unions.

It seems that "Government control" of price fixing, if only on the more important necessities, is the better of the two remedies, as it is more practical to control prices than wages and salaries. It is practical to fix prices of articles for sale within a reasonable limit, but who would be willing to say that the Government or anyone else could as easily fix the raising of salaries throughout the entire land?

From this viewpoint, what is your opinion as to the solution of this problem, which it seems, must be met and solved if the war keeps up?

Looked at from one point of view, the foregoing letter would seem to be an argument in favor of price fixing. Nevertheless, we cannot at all agree with our correspondent that price fixing will meet

the situation. There are many unfortunate inequalities in world affairs at present as between different classes of people which no power of the Government can change, any more than the power of Government can over night cause war to cease.

The MANUFACTURERS RECORD would gladly see all prices regulated to the minimum, with a narrow margin of profit for the producers, if in the long run this would benefit the country and help to win the war; but some study of such problems makes us absolutely certain that price fixing, whether the maximum be high or low, will not produce the desired results.

If the price be by law fixed high enough to leave a large margin of profit, the consumer will antagonize the Government and claim that it is dominated by these protected interests, whether they be the growers of wheat and corn or cotton or the producers of coal, iron and steel and other much-needed products.

Our correspondent says, "It is noticeable that all the papers have been urging the Government to reduce the high price of white print paper." The MANUFACTURERS RECORD is an exception to this. It has not only not advocated that the Government should do this, but it has distinctly urged that the Government should not do so, believing that the price of paper should be left to be regulated by the law of supply and demand. We are paying 100 per cent. and more for paper above the price paid a year or two ago. It is an exceedingly heavy burden, hard to bear, but if we knew that the Government could cut the price to the figure prevailing before the war, to our great personal profit, we would still oppose its doing so, since we believe the principle is not sound and is in the long run injurious.

The price of coal may look very attractive to the consumer when fixed at \$2 a ton, but the consumer would much prefer to get actual coal at \$3 to \$4 a ton than merely to find the price at \$2 a ton without being able to get the coal.

It is not humanly possible at a price of \$2 a ton, even if that leaves a large profit to well-managed coal companies, to increase the coal production sufficient to meet the actual present needs of the railroads and the industrial and other interests, and to help to supply the Allies. Nothing on earth but the temptation of the possibility of exorbitant prices in coal would cause men to take the speculative chance of opening up new coal mines or cause existing plants to largely increase their output.

**The supreme question is one of quantity, and not the price to be paid.**

The demand for coal far exceeds the total capacity of all existing coal mines, but during the last 12 months of steady advance on price of coal men have gone into new coal-mining operations with almost feverish activity, and hundreds of new coal operations have been started throughout the South, based wholly on the speculative possibilities of big profits; but none of these operations would have been started had there been any thought that the Government would fix the maximum price of coal, nor will other coal-mining operations be undertaken to any large extent so long as the coal price is regulated by the Government, even though it be a price which leaves a good profit to the big concerns, but little or no profit to smaller or less well-managed enterprises.

The country is not so much concerned as to whether every coal mine is being managed as efficiently as possible as it is that the coal is actually being dug out of the ground and furnished to the market, and coal is probably the most easily regulated of all great commodities. It is a primary product on which a fixed price can be placed with less difficulty than upon almost any other great product which enters into world trade, and upon which our ability to maintain the war is based, and yet the Government already realizes that the output is so much below the demand that it is now giving its attention to urging people to use as little coal as possible. How much more effective in the

long run would be a tremendous increase in production because of high prices than a famine because of prices named by the Government.

In iron and steel there is a great shortage as compared with the demand. Even now it is thought by many that the Government will have to appoint a steel administrator for the express purpose of turning the steel production into such lines as are absolutely essential to the building of ships and to other work connected with the war. It has been proposed—and indeed urged in one of the leading papers of the East—that the steel which now goes into other than war purposes shall be cut out entirely by the Government and all be forced into the things which make for war, utterly regardless of the needs of independent consumers of steel. It is not to be imagined for a moment that the vast capital needed for the building of new steel plants can be found while conditions such as these prevail, nor will existing concerns, however large may have been their earnings in the past, feel disposed to put all of their surplus earnings into extensions unless they, too, have the temptation of possible large earnings and unhampered control of operations.

It would be far preferable to have all the steel that is needed—and the same is true of iron—at a high price than not to have sufficient for the actual needs of war purposes, much less for ordinary industrial pursuits.

There is a great problem, as our correspondent says, in regard to foodstuffs, but the Government cannot possibly regulate the cost of food without leaving a margin of profit so great to the producer as to make the consumer mad, or else make the profit to the consumer so small as to cause a steady decrease in the output of foodstuffs. Mr. Herbert Hoover, Food Administrator, after a very careful study of the meat situation, has clearly stated that it is not possible to regulate the price of meat. He has seen the inevitable situation that meat prices must continue high for years to come, because of the great decrease in the world's supply of meat animals. More than 10 years ago the MANUFACTURERS RECORD persistently pointed out the danger in this country of a steadily-decreasing supply of livestock and an inevitable increase in prices. Any student of affairs who cared to take the trouble could any time within the last 10 years have foreseen the present steadily-advancing cost of meats without any regard to the possibility of the war. The war has merely intensified a situation which was becoming acute even before Germany entered upon its ruthless, murderous campaign. If the Government cannot attempt to regulate meat prices because the demand exceeds the supply, how can it regulate coal prices where exactly similar conditions exist?

In order to make sure of an adequate supply of wheat, without which the Allies would starve and the war would be lost, the Government has made a minimum price for the wheat crop, even for next year's yield, at a figure which a few years ago would have been considered exorbitant; but this price is fully justified by the conditions which now prevail, and there is no power on earth which can increase our supply of wheat by lessening the price of flour to the consumer below the cost based on the minimum price of wheat already guaranteed by the Government. The Government has guaranteed to wheat growers a minimum price for next year's product of \$2 a bushel. No one knows what the maximum price may be, but the farmer at least is absolutely assured of \$2, whereas a few years ago wheat growers regarded themselves as exceedingly lucky and blessed beyond the average man if they got \$1 for wheat.

We do not believe it possible, therefore, for the Government to regulate the prices of things in general, and the moment it undertakes to put maximum prices on important products, as it has done on coal, instead of minimum prices, as it has done on wheat, it will bring about a decrease in output unless its maximum prices are so high as to create a spirit of hostility on the part of the consumers and cause them to claim that "big business" controls the Government. And even an agitation of that kind would be worse than unrestricted prices.

**The supreme need in this country and of all civilization is to increase the output by such a stimulation of production that eventually our out-**

put will exceed the demand, and we shall then find the lower level of prices based on the fundamental law of supply and demand.

We do not believe in the suggestion of our correspondent that the Government should dictate the salaries of employed men, whether in clerical positions or as day laborers or mechanics. These tremendous problems are things which cannot be solved by Government action. Our correspondent, as many others, has failed to recognize that in all human history there has been no period comparable to this in which we are living. The awful tragedies of the hour cause everything in human history, outside of Calvary itself, to seem insignificant. We can no more expect to do business in the same way as formerly and no more expect to live with the same degree of comfort based on fixed incomes or salaries as in the past than the soldier can expect that he is to be carried in Pullman cars and be fed on the fat of the land and safeguarded from every danger.

The life of the soldier, with all of its hardships, with the terrific struggle which he constantly faces, with the daily work from early morning until late at night, training under a most driving system, that he may be fitted for war, is typical of the conditions which in private life we must all face, and we must face them as heroically and as bravely as the soldier faces his hardships. In no other way is it possible for the nation to put itself in shape to fight this great world struggle.

It is proper that every phase of economic activity should be studied and discussed. It is proper that correspondents like the one from whom we have quoted should look into every phase of business conditions, of high prices or low prices, of high wages or low wages; but these problems must all be studied, not from the viewpoint of our own individual wishes or what concerns our own individual prosperity, or even our ability to continue business, but in the light of whether the things we want are the things which in the long run will best serve the nation in its great struggle to save itself and save the world.

#### DISASTERS THAT WOULD COME FROM TAXING THE RICH TO DEATH.

TO finance the war a great revenue measure is before Congress. While every loyal American expects to pay, and that cheerfully, income tax and all other taxes that are equitably and impartially levied, this vitally-important tax bill has been held up by extremists like Hiram Johnson, Vardaman, La Follette, et al., whose expressed purpose is to squeeze out in one process the major portion of the incomes accruing to men of large means, somewhat as if there were to be at one operation a final division of amassed wealth. In the clamor that where there is conscription of men there must be conscription of wealth, there is no recognition given to the fundamental difference in the cases.

When an individual joins the army he has in that action completed the full measure of the service he can render. In becoming a soldier he has exhausted his power to aid his country. He has made the supreme sacrifice, and this is an act he can perform but once. Wealth, however, if permitted to exist, will continue to reproduce like the harvests of the earth, and contribute perpetually to the country's needs, to the support of the armies in the field, to the purchase of the food, clothing and munitions which must go forward in an unending stream to make the fighters at the front an effective force. To cripple the productive power of industry and commerce would be to cripple the strength of the soldiers in the ranks—a truism so obvious as to leave no room for argument. The people who have must pay the enormous costs of this war, and the payments must continue for an indefinite period of time, even should the war end within a year.

There is also a further disastrous side to the mischievous activities of the baiters of wealth. As the New Orleans Times-Picayune well points out, were these extremists to have their way, there would be a complete breakdown in the work of the

churches, the universities and the philanthropic and charitable institutions of the land. Says the Times-Picayune:

Senators of the La Follette type talk about bleeding the plutocrats white, as if the process were as simple as the rule-of-three, though economists understand that the process would bring utterly unexpected results. The plutocrat would know the worst that could befall him, but institutions which have largely depended upon his bounty would find themselves on the rocks.

For it is a matter of record that American churches, universities, colleges and charities receive vast sums of money in the shape of gifts and bequests. In some instances these gifts and bequests are due to native goodness of heart; in other cases—in the majority, perhaps—the gifts and bequests are due to a social pressure which has become almost irresistible of late. Mr. Carnegie indicated the intensity of this pressure when he declared that overflowing wealth is a disgrace. Be the impulse what it may, its consequences are plain. America has outdistanced the richest lands of the Old World as regards the sums annually devoted to educational, charitable and religious purposes by private benefactors.

But our educational, religious and charitable institutions must cast about for new sources of support if Congress bleeds the rich white. With his income cut in half by the supertax, the multi-millionaire must retrench, since churches, universities and hospitals constitute by no means the only calls upon his benevolence. This is no valid argument against the most drastic taxation of the rich, if the Government stands ready to fill the void which such taxation is sure to create. But will the Government fill the void? That is the problem which has not been broached in either house of Congress, so far as we read.

It is easy to say: "Tax the rich to death and let the churches, etc., shift for themselves as best they can." This policy might "pan out" in the long run, but a tremendous dislocation of the country's higher life must meanwhile occur. Such considerations never daunt men of one idea, but they always daunt reformers, who do not fancy burning the house to roast the pig.

The situation demonstrates anew the danger of putting freaks and harebrains in positions of power. Unbalanced, erratic and violent have been "the little group of willful men" from the time they broke through the obscurity of their early days. Vehement, voluble, vagarious, they have blasted a path of destruction, in so far as in them lay, all along the road by which they have come. Never safe nor sound, the rickety character, like the rickety boat, may be counted on to go to pieces in the stress of a storm, carrying those dependent on them down to shipwreck and death. To the "rickety boats" in Congress will be attributed the needless sacrifice of human lives on the battlefields, the prolongation of the awful struggle and interference with the fullest productive capacity of those who must provide the nation with the sinews of war.

May the country hope that a lesson has been learned by the voters of the land, and that the doom of the slacker and the unpatriotic has been sealed? "Turn the rascals out!" should again become the slogan of the day.

#### MAN CAN EAT THE SHARK.

NOW comes Russell J. Coles of Danville, Va., at a time when the country is wondering how it is going to get enough and a satisfactory variety of food at not too unreasonable prices during the winter, and vouches for assertions hitherto made that sharks are good to eat; in fact, that some of them are very good for food. He also says that the sea contains many varieties of edible fish thus far not used on the table. The New York Times remarks that Mr. Coles is a baiter of big game fish, and that he was the companion of Colonel Roosevelt on his shark-hunting expedition last spring, thereby indicating that he knows what he is talking about.

Mr. Coles, in discussing the subject of seafood, recites that the shark abounds in a number of varieties, and that only one of them, the white shark, has ever been known to attack human beings. Most of them subsist on other fish. The hammerhead shark, so called by the peculiar formation of his head, lives mainly on Spanish mackerel, so that if folks took to catching and eating hammerhead sharks, they would not only have another food fish for their tables, but they would conserve the supply of Spanish mackerel, thus increasing in two ways the food supply, at least so far as fish goes. He observes that for years several kinds of shark have been eaten at Charleston, S. C., and on the California coast. Some kinds of shark meat have

to be prepared so as to remove a strong flavor which distinguishes them, but as there are other fishes as well as other kinds of food which have to be specially treated before eating, this would not form any real ground for objection to using sharks as food.

It is known that shark hide makes good, strong leather, and it is disclosed that the livers of sharks yield an oil of superior quality, which may be used like cod-liver oil.

All this is very excellent, and if it can be generally demonstrated by experiment that the idea of shark eating can be made popular and agreeable, a great lift will be given to the food supply. It is certainly a much nicer thing to discover that man can eat the shark instead of the shark eating the man, as has been the procedure in the past.

#### CAN THE WAR LAST, AND HOW MANY ARE BEING KILLED?

[MANUFACTURERS RECORD, October 1, 1914.]

AT the time of the Civil War the South's population was about 10,000,000 out of a total in the country of 30,000,000. Of these 10,000,000 approximately 6,000,000 were whites and 4,000,000 blacks. At the beginning of the war the South was without a navy or an army, without organized government, without any monetary system and without any method for raising money by taxation or otherwise. A government had to be created, a system of taxation established, an army had to be raised and equipped, and some method had to be devised for organizing the finances of a government whose ports were all blockaded and which, therefore, had no means of exporting its chief product—cotton.

On the other hand, the North had an established government, an army and a navy, its ports were open to the world, it had vast manufacturing interests and all the other advantages of a completely organized system of government as compared with the difficulty of creating a new government. It had three and one-third times as many white people as the South. It, therefore, had three and one-third times as large resources to draw upon for its fighting men. Its advantages in other respects were even greater than the three and one-third times the difference of white population.

Notwithstanding this disparity, the South maintained its fight for four years.

How long can Germany and Austria, if they are driven back from France, maintain themselves against Russia, England, France and Belgium? The Allies cannot bring against Germany and Austria from their European possessions any such preponderating number of population as the United States was able to bring against the South. They cannot bring so great an advantage against Germany and Austria in wealth, in commerce and in a navy as that which the North had in comparison with the South.

These facts are mentioned not with a view to raising any question as to the struggle made by the South, but as a side light on whether Germany and Austria could, if they were invaded, maintain relatively such a struggle as that which the South maintained for four years, and, if so, what would be its world effect. It has been repeatedly said that it would not be possible to finance a long war, but the South, without money, except that turned out by its printing presses, succeeded in financing a war for four years, and when a nation is struggling for what it believes to be its very existence its people can keep on fighting for a long time beyond the period at which bankers from their viewpoint would think it possible.

If, on the other hand, Germany and Austria should for a time prove to be winners, it is not conceivable that they could invade Russia, England, France and Belgium to the point where these countries would be compelled to submit, certainly without years of fighting.

Three years ago, when this editorial was published, it was ridiculed by some newspapers as suggesting an impossibility. This war, they said, could not possibly last for several years, and many financiers and business men said the same; but the war has lasted, as suggested by the MANUFACTURERS RECORD it would do.

#### SULPHUR AND THE FOOD SUPPLY.

MR. J. FORDYCE BALFOUR of Everslee, Scotland, in a letter to Mr. Courtney De Kall about the use of sulphur as a fertilizer, writes:

"Your article, 'Sulphur and the Food Supply', has been brought to the notice of our agricultural experimenters here. It has caused a bit of a sensation. When once we begin on the problem it won't be long before we are leading the way. Part of the criticism was on the small size of the best plots, as shown in the photographs. Testing in this country would be on areas of not less than 25 acres, with check areas of similar size. It's a great pity we have no deposits of gypsum impregnated with sulphur."

## According to Mr. J. H. Collier of Memphis, Our Editorials Are "Low," "Vituperative," "Undignified," and "Engender Harmful Animosity," and Should Be Such as to "Soften the Bitterness of Defeat" to Germans.

SOUTHERN BOILER AND TANK WORKS,  
Memphis, Tenn., September 4, 1917.

Editor Manufacturers Record:

Possibly you have not seen the enclosed article by Mr. Howard H. Gross, as I do not recall having seen it reproduced in your paper. It is directly to the point and shows clearly what must be done and done speedily. Your articles would carry a great deal more weight if written along the line that Mr. Gross has chosen.

I regret to see you select such low levels of vituperation as the spirit in which practically all your editorials are written. The front cover of your last edition was especially bad, undignified, and only engenders harmful animosity that should not exist. The war must be prosecuted vigorously and victory for us assured as quickly as possible. But it will end some day, and we should conduct ourselves so that when peace comes the bitterness of defeat will be softened by the knowledge of our antagonists that what we have done was done because we were sure we were right and that there was no hatred in our hearts.

I am sure you will do the country a greater service if your editorial policy is changed.

J. H. COLLIER.

1616 Linden Ave.

We are compelled to decline to follow Mr. Collier's suggestion about changing our editorial policy, and some of the reasons therefor may be found in the following reply to his letter:

The MANUFACTURERS RECORD invites criticisms, and therefore it welcomes the foregoing letter from Mr. Collier. Nevertheless, we are forced to say that Mr. Collier has demonstrated an incapacity to think clearly, which is sadly prevailing in this country, though gradually our people are awakening to the fearful curse which was coming upon the nation from the lack of moral perception and backbone. We were growing so accustomed to the unspeakable barbarities of Germany that we were in danger of losing all moral perspective. Our backbones were becoming jelly, and we are afraid that those who looked at the matter from Mr. Collier's viewpoint are in that condition physically and mentally. He is laboring under the delusion that our war upon Germany must be pursued with the gentleness of the cooling dove. It is true we must win the war, according to Mr. Collier, but there must be no "bitterness" in our hearts. Away with such sentimental, weak-brained, weak morality, it matters not who gives voice to it!

If the people of this country could face the awful realities of the destruction wrought by Germany upon individuals and nations, the murder of innocent women and children, the unspeakable outraging of women, which has blackened the pages of human history as never before since man was created; the bombing of hospitals and the killing of the wounded therein, the death wrought upon the workers of the Red Cross, the submerging of hospital ships, and all the long roll of horrors which have come from hell itself, and still have anything but bitter, determined, relentless hatred in their hearts for such crimes, they would prove themselves unworthy to be called men and women.

We take it from his letter that Mr. Collier (and we publish his letter only because perchance there may be someone else who is of his way of thinking, though we trust that this country has not more than one man feeling that way) has no hatred in his heart for such atrocities, or else he would not object to the bitter, burning denunciation of such crimes. We do not want to see the "bitterness of Germany's defeat" "softened" by any knowledge that we are weak-minded, weak-hearted or weak of backbone, or weak of moral force. We want Germany and all Germans to realize to the depth of "bitterness" that for centuries to come the name "German" will be a hissing and a by-word in all civilization, and that for centuries to come humanity will shudder as it thinks of the awful crimes wrought by the Germans, not by individuals here and there only, but by the German Government and by the people of Germany as a whole.

Germany has been mad with the war spirit; for

generations its people had been taught "frightfulness." Its army officers and its philosophers had taught "frightfulness," and the full fruits of their teachings are seen in the murdering of the innocent people on the Lusitania; in the murdering of people sent down without a word of warning in other ships; in the outrages upon women, a thousand times worse than murder; in the murdering of innocent children. All of these things are but the exact fulfillment of what German military leaders and philosophers had for years been teaching long before the war. They told the people that "frightfulness" must, of necessity, be part of the next war. They told the people that Germany must struggle for world domination. They preached the doctrine of the destruction or deportation of the people in captured territory and the filling of these regions with Germans. These are the doctrines which have been to the front in Germany, not merely since the war, but unceasingly for the last 30 or 40 years. The record of German teachings in these respects is as black as the record of the fulfillment in German acts. If Mr. Collier wants to count such criminals as friends, if he wants to have no burning moral indignation against them, if he wants to save them from any "bitterness of defeat," that their defeat may be "softened," then Mr. Collier is not likely to be very vigorous and active in the only kind of fight which will save this nation from suffering as Belgium and France have suffered. And, thank God, the number of Americans who hold such views is rapidly diminishing to the vanishing point.

We do not know Mr. Collier. He writes on the letterhead of the Southern Boiler & Tank Works, but his name does not appear as one of the officers. Nevertheless, we are glad to give him this space, because his letter merely gives us another chance to seek to arouse this country and the men and women in it to the unspeakable folly of trying to cultivate a sickly, sentimental spirit of gush in regard to Germany and the war in which we have engaged.

We are making a life-and-death struggle for ourselves, for the women and children of this country, that they may be saved from the awful wreck and ruin, a thousand times worse, yes, infinitely worse, than death itself; but Mr. Collier wants us to deal gently with these outragers and murderers; he wants us to have no hatred in our hearts for them; he wants the "bitterness of their defeat" to be "softened," and therefore he suggests to us that the MANUFACTURERS RECORD would have far more weight if its editorials "were written in a different spirit"; if they were less strongly expressed, and therefore soft and gushy. He objects to what he calls our "undignified" editorials, which "engender harmful animosity."

We are doing the best we can to create a living, breathing animosity, an animosity which will stir the life blood in every man whose blood runs red with humanity; in every man who honors womanhood and loves children; in every man who has the moral and the mental backbone to stand for the right, though the heavens fall; in every man who is ready to save this country from the full fruition of rape and murder, individually and nationally, which can be made possible only through the crushing defeat on the battlefields of Europe of the Hell-born and Hell-guided powers of Germany and its allies. Is this "soft" enough to suit Mr. Collier?

### A PRESSING NEED.

PAUL WATSON, Galveston, engineer and selling agent of Texas for the French Oil Mill Machinery Co., in a letter dated August 31, writes:

Will you ever get your Director of Public Safety? It would fill a long-felt want. There is one man who could fill it and have the confidence of the people; you have named him.

### LESS DOGS—MORE SHEEP.

EVIDENCE is still being accumulated against the worthless, sheep-killing dogs that are allowed to roam, uncontrolled by adequate laws, throughout the country, destroying sheep, sucking eggs and killing chickens, spreading disease and consuming enough food, even if it consists largely of scraps and leftovers from the kitchen, to feed hogs and chickens by the thousands. Almost daily the papers of the country contain reports of the killing of sheep by dogs, in some instances one or two sheep, and in others as many as 50 sheep in one night from a single flock, which in the aggregate not only shows a large loss in the number actually destroyed in this manner, but in the effect that this has on the whole sheep industry in causing farmers and growers to hesitate about raising sheep and establishing new flocks.

The MANUFACTURERS RECORD has from time to time called attention to the ravages of the unlicensed, uncontrolled, wandering curs and the damage they have done and are continuing to do to the South's sheep industry. And from time to time we have republished accounts of the destruction of sheep by dogs in various parts of the country, which shows how the movement to protect an industry which gives both food and raiment to mankind is gaining favor with lawmakers and thinking people.

In the September 1 issue of the Extension Farm News, issued by the North Carolina Agricultural College and co-operating bodies, a North Carolina farmer, writing to a wool manufacturer regarding his own and his neighbors' sad experiences with sheep-killing dogs, says:

We are in trouble. We have always been raising sheep, but the dogs have been in our flock and have destroyed the whole flock, and every sheep raiser in eight miles has asked me to write you and ask you to please try to get a State-wide law passed to put a tax of \$25 apiece on all male dogs and \$50 apiece on all females. I have seen in the paper where 5000 other farmers have also asked for protection for their sheep.

I have heard people say that they wanted to wear woolen goods, but they could not if the dogs killed the sheep all over the country like they have here. We have had 100 head of sheep killed, and have finally been broken up. We are trusting in the Lord that you will make that law for our and your benefit, so please write us soon and tell us what can be done.

On the same day, September 1, under the title, "Let's Have Sheep by Getting Rid of Curs," the Birmingham Ledger editorially commented on the activities of sheep-killing dogs and the harm they are doing in stifling sheep growing in the South, and suggested the following:

Progressive Alabama farmers, of whom the number is rapidly increasing, are more than anxious to raise sheep. This cannot be done with financial success so long as the cur dog wanders about and deals death in the sheepfold. The climate is here, the food is here, all the conditions needed to raise sheep at minimum cost; the dog alone stands in the way.

The Ledger has this suggestion to make: That the Auburn Institute, Farmers' Alliance and the Progressive Farmer undertake a systematic campaign of education on the evil of the cur dog and agree upon an adequate dog law, which they will unitedly present to the next Legislature and press for adoption. The campaign of education will serve to establish public opinion in rural districts and a united front in the name of the farmers and in their behalf will ensure a dog law that will mean the obliteration of the worthless cur and the rehabilitation of the sheep industry.

### A BOSTON VIEW.

[From MANUFACTURERS RECORD of September 6.]

LET the reptile press and the hyphenated seditious have their say while the saying is good. The first headline that tells of American casualties abroad will put a muzzle on them so tight that, please God, it won't be pried off in a thousand years.—Boston Transcript.

And we won't have long to wait.

We did not have long to wait, for on the eighth this country learned that an American hospital in France had been bombed by Germans and several Americans killed. Not content with outraging women and murdering babies, Germany now delights to wreak its hatred upon the wounded and the Red Cross nurses. May Heaven save American Red Cross nurses from being captured by Germans!

## Where Pity and Peace Would Be Sin and Curse Mankind for All Time to Come.

**I**F unblushing crime, murder, rape and barbarity should for a time overrun a community and its law-abiding citizens should say to themselves, "It would be cruel to punish these criminals, and, moreover, some of us might be killed in battling for the right, therefore we will call the matter square and admit to equal fellowship and good standing these unrepentant, unhung criminals, merely for the sake of peace, without regard for the price we pay for peace," the moral stamina of every man and woman and of every boy and girl in that community would be immeasurably and forever weakened.

In condoning crime that community would sow the seed for a still greater harvest of crime.

If because of our sentimental love of peace Germany should be permitted to go unpunished for her crimes and the power of the Kaiser be not overthrown, the world would stamp its approval upon ruthless war undertaken for the express purpose of dominating Europe and America, and its approval upon the most awful crimes of individuals and nations in all history. Then the moral fiber of all civilization would be weakened, and the whole world would have sown broadcast the seed which would soon ripen into a greater harvest of crime, of infamy, of immorality, of frightfulness, of individual and national lust and of new wars more horrible even than this.

The ordeal before civilization may be a terrible one. It may mean fearful sacrifices. It may mean woe in millions of homes yet untouched by personal sorrow, but we cannot help ourselves by shutting our eyes. We may have to drink this cup of bitterness. We may have to face the agonies of a Gethsemane and the sufferings of a Calvary, but we have no choice. All that we can do is to pray for the strength to endure and to fight the battle manfully and heroically to meet the world issue.

The fight is upon us. The murderers are aiming at us. The rapists are looking to this land in their lustful dreams. It is ours to do if in the doing we die. Death with honor, battling for the right, is better than life with dishonor.

This nation may well say, "Give us honor and the safety of our womanhood or give us all, men and women alike, death!"

After the foregoing had been written there came to us the splendid analysis of the great war by Maeterlinck, published in the Paris Figaro and translated for the MANUFACTURERS RECORD by Maj. Frederick H. Lewis, Engineers' Reserve Corps, United States Army, in which the position taken in this editorial is more than upheld and put with a crystal clearness and superb force. In closing his review of the war, published in full elsewhere in this issue, and its causes and the possible danger of the hour, Maeterlinck says:

**"Almost all that pertains to the hazards of the combat are ours, and the war over our wisdom and our will shall find themselves facing a destiny which henceforth can only act again if it succeeds in blinding or perverting them. That will be the hour when all that is hidden in the mysterious word awaits us to determine whether we or it shall prevail. It is after the victory that we must really conquer; it is at the hour of peace that the true war**

**against an invisible adversary will begin, and it will be a hundred times more dangerous than that other war of which we have seen too much. If, at that hour we do not profit by all our advantages, if we do not destroy forever, to its uttermost roots, the military power of an enemy who is the secret friend of the malevolent forces of the earth; if from this moment by an irrevocable pact we do not forearm ourselves against our pity, our generosity, our weakness, our imprudence, our discords and our future rivalries; if we allow, to the beast at bay, a single way out; if we by negligence accord to him a single hope, a single occasion to rise to the surface and take breath, then waiting fate, which has always a fixed idea, will regain its path and pursue its way at the head of the story, mocking over its shoulder at man once more tricked and undone.**

**"All that we have suffered: our ruins, our sacrifices, our tortures without name and without number, will have served for nothing, will be lost past reclaim. All will not begin over again, for nothing begins again; the happy hazards of life do not pass twice. But all, except our misfortune with all its consequences, will be as if it never had been."**

### GOOD FOR GOVERNOR CATTS OF FLORIDA.

**T**HE National Security League, in reply to inquiries recently sent out in regard to the necessity of awakening the people to the war situation, has called forth many interesting letters. One of them is from Governor Sidney J. Catts of Florida, whose letter, published in full elsewhere, contains this paragraph:

My idea is that we have made a great mistake in the past by not being prepared for military triumphs and warfare. The cry of peace when there was no peace has moved over this country, foiling and deluding the people until this terrible war with Germany has come about, which finds us wholly unprepared.

This is especially interesting in view of the telegram received by the MANUFACTURERS RECORD from Governor Catts on March 12 last. At that time we wired to Governor Catts, as to the Governors of other Southern States, calling attention to the active work of Connecticut in organizing a census showing its military strength and the industries available for the manufacture of munitions of war, and added:

Please send us for publication what is being done or contemplated along that line by your State.

In reply to that telegram, Governor Catts wired:

Telegram received in regard to showing military strength by the State of Connecticut. Will say that we have not taken a census down here yet, as we do not think that war is close enough to warrant it. In case we have war you can count on Florida doing her part.

Governor Catts now admits that the country made a great mistake in not being prepared for war; that the people were deluded and fooled by the cry of peace when there was no peace, and that now, with this terrible war upon us, we are unprepared. That was the position taken last March, as for the preceding three years, by the MANUFACTURERS RECORD, but Governor Catts rose up in his mighty wrath because when publishing his telegram we presumed to criti-

cize the fact that nothing was being done in Florida, and his impression that war was not close enough to warrant any preparedness. That criticism called forth an interesting and lively letter, typical of some that the Governor of Florida sometimes produces. He called that criticism scurrilous; he represented the MANUFACTURERS RECORD as anxious to bring on war, because it would increase its prosperity; but just how the MANUFACTURERS RECORD could secure increased prosperity from war we have never yet been able to learn. He suggested that even if he had taken a military census, he "would not be fool enough to tell the MANUFACTURERS RECORD anything about it"; and then he added:

If you Catholics of Maryland think that you can run over us Floridians, suppose you raise a regiment and come down here and see how quick we will make you fellows hit it back to the North from whence you came.

This was the first time that the editor of the MANUFACTURERS RECORD knew that he was a Catholic. He has no record of ever having been a member of a Catholic church, but since Governor Catts seems to know more on the subject than anyone else, we suppose it will be necessary to accept his decision.

And then Governor Catts added a few more suggestions, to the effect that the MANUFACTURERS RECORD attend to its own business, advised us never to send him any more telegrams, and intimated that if anybody tried to attend to his business, "I will get me a good lawyer and will sue you for damages."

We freely forgive Governor Catts, and now rejoice that he has seen the light. We tried last March to persuade him to see it. We tried to make clear to him, as to others, that the war was already upon us, and that quick action was necessary in order to avoid being taken unawares and made to suffer enormously from our failure to see that war was already being made upon us.

We congratulate Governor Catts for so freely admitting in his letter to the National Security League that the country made a great mistake by not being prepared for war. We congratulate him upon realizing, as he so clearly states, that the cry of peace when there was no peace was fooling and deluding the people, and that this went on "until this terrible war has come about, which finds us wholly unprepared." We rejoice that Governor Catts has seen the light, and perchance the education that he has now received will prompt him to permit the editor of the MANUFACTURERS RECORD to belong to the denomination with which he has been slightly identified for a good many years, and that we will not be required to lead a Maryland regiment to Florida in order to overrun that State. Perchance even our criticism started Governor Catts to thinking, and that is exactly what we desired. We are perfectly willing to be denounced if the opinions which call forth such denunciations stir the microbe of real thinking and start men to a study of world conditions. We do not agree with Governor Catts' suggestion in his letter to the Security League that a chain of forts should be built along the Canadian and the Mexican borders. We believe that the peace between Canada and the United States now maintained for over one hundred years will never be broken. We do, however, fully agree with him that munition plants should be built in the interior. The MANUFACTURERS RECORD first promulgated that doctrine, and it is glad to have Governor Catts and all others advocate it.

And now we trust that Governor Catts will not forbid the writer spending his winters as heretofore in the glorious sunshine of the sun-kissed land of heavenly delight, commonly called Florida.

### "Shoot Him Full of Holes."

ASHLEY SOWELL, Secretary Board of Education of the City of Columbia, Columbia, Tenn.

Congratulations on the charge heard around the world that "shot him full of holes." The fact is, the editorial columns of the MANUFACTURERS RECORD are far outstripping our leading newspapers, and I wish it was daily instead of weekly.

## MORE DISASTROUS RESULTS FROM PROHIBITION.

THE MANUFACTURERS RECORD has repeatedly called attention of late to the serious destruction that has come upon a number of business interests by reason of prohibition. It so happens, however, that these particular business interests that have been ruined by prohibition are the jails and penitentiaries and convict camps. They are practically being run out of business by prohibition.

As we have previously stated, any community that desires to keep its jails and penitentiaries full should never encourage prohibition, for wherever prohibition is introduced and the law rigidly enforced there is such a decrease in the number of convicts that jails and penitentiaries become almost vacant.

The American Highway Association of Washington has just issued a brief statement under the heading, "The Unique Quarters of a County Engineer," in which a specific illustration is given of the decrease in the demand for jail room by reason of prohibition. Indeed, so great has been the lessening of the convicts mentioned in this particular case that road building by convict labor must almost cease, because there are not enough convicts to do the work.

The liquor interests may well hold this up as a shining example of the effect of prohibition, since it would be as good an argument as much of the stuff they put out. They may hold up their hands in horror and say, "Here is a case where the number of convicts has been so lessened that the construction of roads by convict labor cannot proceed," and on this base an argument for the limitless use of whiskey in order to increase the number of convicts. In its statement, the American Highway Association says:

Early in the year the State Highway Commissioner of Washington, James Allen, made a report concerning convict-labor conditions for road work, which forms an interesting paragraph in the 1917 Good Roads Year Book. It reads as follows:

"While the law for prison labor remains unchanged, the number of convicts available for road work has decreased since the prohibition law went into force, to such an extent that there is no likelihood of any road work by prison labor during the ensuing two years."

This comment on the effect of aridity on road conditions in the Rhododendron State, startling though it is, is confirmed by the announcement not long ago that the engineer of Chelan county was in the jail at Wenatchee, not because of misdemeanor, but because as a result of prohibition, there were no longer any guests there and the sheriff considered the county might as well use the vacant room as an engineering office.

## IGNORANT AND DEMAGOGIC DENUNCIATION OF RIVER AND HARBOR BILL.

THE River and Harbor Bill of 1917 carries an appropriation of \$27,826,150. It had the usual stormy passage through the House and Senate, meeting with the customary denunciation as "pork" not only by habitual denounciators in the Congress, but by a considerable portion of the daily press, even including some of the big metropolitan newspapers.

This criticism, founded on demagoguery, ignorance or mental indolence, is neatly answered in a statement recently issued by the Atlantic Deeper Waterways Association, which, under the heading, "Why Not Tell the Truth About the River and Harbor Bill?" says:

That the River and Harbor Bill of 1917, drawn in accordance with the estimates of the Chief of Engineers and approved in advance by the Secretary of War and the President, is a wise and practical measure is evident upon a study of its schedules.

The criticisms of the bill that have been going the rounds of the press have been due mainly, in our judgment, to the fact that representatives of the press have not analyzed the text of the bill nor considered the reasons for the various items so abundantly stated in the committee report. They have found it more convenient, under pressure of other work, to use ready-made statements emanating from a small, self-righteous and peculiarly reckless minority. "Waste and extravagance" is the catchword; "no practical need for the work, millions going into little creeks, rivers that ought to be paved, streams that should be stood up on edge." And where sectionalism still appeals, "the most is intended for distribution in the South."

We deny all these statements and challenge members of

Congress and representatives of the press to cite facts in support of them. They are not true.

The River and Harbor Bill, as it finally passed Congress, carried a total of \$27,826,150. Of this, 51.5 per cent., or \$14,344,350, is for maintenance and improvement of ocean harbors on the Atlantic, Gulf and Pacific coasts, Alaska, Hawaii and Porto Rico; 8.1 per cent., or \$2,261,100, is for maintenance and improvement of inland lake harbors and channels; 31.3 per cent., or \$8,725,000, is for maintenance and improvement of five leading rivers, under projects previously adopted by Congress; 1.2 per cent., or \$325,000, is for examinations, surveys and a commission; and there remains only 7.9 per cent., or \$2,170,800, to cover all other projects in all parts of the country; maintenance and improvements of river, harbors, canals, waterways and removal of obstructions. Where are the "millions for creeks" and the "chunks of pork" for favored sections? Where are the "items tacked on by individual members"? Every item refers to a War Department report and estimate, and the total allowed by Congress is less than the War Department requests.

That is the truth about the River and Harbor Bill of 1917. The rest is ignorance, prejudice and misinformation.

In support whereof a classified summary compiled from the official bill is subjoined. Let the pork hunters point out the pork!

Portland, Me.....	\$300,000
New London, Conn.....	100,000
New York, N. Y.....	2,150,500
Philadelphia, Pa.....	2,170,000
Wilmington, Del.....	50,000
Baltimore, Md.....	354,000
Washington, D. C.....	30,000
Norfolk, Va.....	900,000
Richmond, Va.....	75,000
Wilmington, N. C.....	120,000
Charleston, S. C.....	120,000
Savannah, Ga.....	380,000
Brunswick, Ga.....	35,250
Jacksonville, Fla.....	325,000
Miami, Fla.....	100,000
Tampa, Fla.....	305,500
Mobile, Ala.....	115,000
Pascagoula, Miss.....	113,000
Gulfport, Miss.....	80,000
New Orleans, La.....	1,325,000
Port Arthur, Tex.....	410,000
Galveston, Tex.....	430,000
Port Aransas, Tex.....	100,000
Freeport, Tex.....	216,000
San Diego, Cal.....	174,000
Los Angeles, Cal.....	75,000
San Francisco, Cal., and neighboring harbors.....	287,500
Oakland, Cal.....	92,000
Richmond, Cal.....	100,000
Humboldt, Cal.....	190,500
San Pablo and Mare Island, Cal.....	530,000
Cook Bay, Ore.....	70,000
Portland, Ore.....	310,000
Grays Harbor, Wash.....	85,000
Puget Sound, Wash.....	230,000
Nome Harbor and Yukon River mouth, Alaska.....	150,000
Honolulu, Kahului, and Hilo, Hawaii.....	210,000
San Juan, Porto Rico.....	410,000

40 principal ocean harbors (51.5 per cent. of total) .....\$14,344,350

Lake Champlain, harbors and narrows.....	\$386,500
Lake Ontario, 3 harbors.....	25,500
Lake Erie, 10 harbors.....	216,650
Lake Superior, 10 harbors.....	195,000
Lake Michigan, 17 projects.....	140,750
Lake Huron, 10 projects.....	603,500
Ship channel.....	185,000
Lake Michigan, Chicago, and neighboring harbors.....	510,200

Inland lake harbors and channels (8.1 per cent. of total) .....\$2,261,100

Ohio River.....	\$5,000,000
Missouri River.....	1,085,000
Mississippi River (above Ohio River).....	1,002,000
Cumberland River.....	637,000
Tennessee River.....	401,000

5 principal inland rivers (31.3 per cent. of total) .....\$8,725,000

All other projects, rivers, harbors, canals and waterways in all parts of the United States (7.9 per cent. of total).....	\$2,170,800
Examinations, surveys and waterways commission (1.2 per cent. of total).....	325,000
Total of bill.....	\$27,826,150

With the railway transportation of the country wholly inadequate to present demands of commerce and confronted with the impossibility of sufficient expansion within the near future, if ever, it is of vital importance that waterway transportation be developed to the uttermost. In Germany, Belgium and France, especially, and to a greater extent elsewhere in Europe, every stream that can float a boat from the largest to the smallest is improved at public expense and utilized to the fullest extent possible. The war has not halted projects in those countries that were under way before August, 1914, and even now great plans for still further developing water transportation are being worked out for undertaking immediately on the close of the war.

It is high time the people, the politicians and the press gave intelligent consideration to the vast importance of waterway development to the future growth and prosperity of the country.

The peace dove is flying around with a bunch of sauerkraut in its claws, and yet wonders why someone does not open the window!

## EARLY DECISION MAY BE MADE IN LOCATION OF NITRATE PLANT.

Government Officials on Supplemental Trip of Inspection Now—No Official Instruction Given as to Probable Decision, Except That It Will Be Favorable to South.

Washington, D. C., September 10—[Special.]—A decision is expected soon as to the location by the Government of its proposed ammonia plant, nitrate plant and powder mills.

The final investigations by War Department officials for the purpose of looking into the desirability of sites not already visited will be completed this week. Colonel Joyce and Captain White of the Bureau of Ordnance of the War Department, left Washington Saturday night for their last trip of inspection. Upon their return a meeting of the board of army and civilian experts will be held, and the most desirable location determined upon, subject to the approval of the Secretary of War.

It is expected that the board will make its announcement within the next week or ten days, and that the work of transporting machinery, building materials and labor for the construction of the first unit will begin promptly.

The report of the Ordnance Office of the War Department on the Government nitrate plant project, as published in full in last week's issue of the MANUFACTURERS RECORD, has disposed of many rumors which were current in recent months.

The full disclosures as to the limitation of the area in which the \$3,000,000 synthetic ammonia plant is to be located, as well as the extent of the information of methods of manufacture, as given in the report and supplemented by Dr. Charles H. Herty, further narrow down the available site to "somewhere in Southwest Virginia."

There is every reason to believe that the main \$3,000,000 plant and also the powder mills, to be built by the Government will be located in the same section.

Various points within the boundaries of the region roughly outlined in the report of the Ordnance Office of the War Department have been selected by those who have been on the trail of the project. None of these, however, has yet been approved by the War Department.

Some of these conjectures as to the site eventually to be selected will probably be correct. They are ingeniously based upon a consideration of favorable local conditions, such as are intimated in the report as requisite to the requirements of the plant. Others have in mind the earlier trips made by the investigating committees, from which they draw their conclusions.

It was positively stated at the War Department today that each and all of these reports are at present speculative. In this connection there is recalled the fact that press reports earlier appearing on the subject discussed of the relative merits of numerous Southern streams from the standpoint of the amount of water-power that could be obtained from each. This, of course, was on the presumption that the full \$20,000,000 appropriation would be used and that a powerful head of water would be necessary for the manufacture of the nitrates. While these discussions were going on the War Department had already received the report from its officials containing recommendations for using only a part of the sum appropriated, setting aside the question of the utilization of water-power in the process of manufacture and suggesting that investigations along that line be indefinitely suspended.

So far, then, as the question of the actual site is concerned, there has nothing as yet been officially revealed. That the section of the country indicated will receive the plant, and that a decision will be made at an early date, is contemplated under the terms of the report made public last week. Incidentally, it may be regarded as a distinct victory for the crusade carried on vigorously and without cessation by the MANUFACTURERS RECORD, in which the interior of the South was shown to be the logical place for the location of the plant from every standpoint of available material, quick transportation, nearness to the main demands for fertilizers, and invulnerability to enemy attack.

A dyehouse and bleaching plant will be built by the Barker Cotton Mills of Prichard, Ala.

## WHAT WE HAVE SEEN

By GRACE ELLERY CHANNING.

[The Saturday Evening Post has done all civilization a great service in publishing in its issue of September 8 an article by Grace Ellery Channing, in which writing from France she tells a story of barbarism by Germany and of awful suffering and heroism by France, which should be read by every man, woman and child in this country. It would be well if it could be read from every pulpit and in every school in America.

We can only pick a few paragraphs here and there to give merely a few sidelights on the world's most awful tragedy as seen by an American woman who voices what some in this country have long known and felt in all its depth of agony. May God grant that all of our people shall understand it ere it be too late.—Editor Manufacturers Record.]

A year ago, when the French were still at Verdun and the Germans—to quote the now famous phrase—were “still at Noyon,” the most striking thing to the foreigner in France was the attitude of the French themselves toward the enemy. France was invaded; for already two years she had been fighting on her own soil the greatest fight in history; her suffering and her losses had passed all measure; yet very rarely from any source did one hear a word of bitterness. The soldier had always a generous phrase for the soldier's valor—the Boche, the Hun, was not infrequently Fritz to the Allied troops; even behind the ranks, where feeling always runs higher and more bitter, there were contempt, dislike, an iron resolution, but an absence of violent expression. “We do not hate,” said more than one civilian to me. It is not in our temperament. If we ever learn to, it will be you Anglo-Saxons who will teach us.”

In New York I had listened skeptically to a German friend, insisting that the French feeling for the Germans was friendly and that the regrettable incident of the war had hardly disturbed it. That was his thoroughly German reading of the French containment—an exhibition in small of that Teutonic inability to understand the other man which has made German diplomacy a wonder of the world and will in the end lose that world to the German. But the calm of the French people might really have misled subtler brains—a year ago.

That was a year ago. Today there is another tale to tell; there is another France with another temper. Today the French have learned to hate—and it is not the Anglo-Saxon who has taught them; today the German pathetically complains that the very children of France are being reared in this hatred of him. And in this statement, and in the German sense of injury under it, we have presented to us the whole of that psychological phenomenon which will engage men's attention for generations to come—including, I doubt not, generations of Germans.

### TWENTIETH CENTURY HUNS.

We can deal briefly with the French half of that phenomenon. Great as the change in the French temper is, there is nothing mysterious about it. France is an old military nation; she has always been being invaded by Germany except when, as in the Napoleonic past, she was herself the greatest invader of Europe. Moreover, the French people have no equal in the world for clarity of thought; it is their trait—that on which they pride themselves, that which the world concedes them. With it goes a kind of inevitable justice. No mere war, not even the most unprovoked and aggressive the world has seen, could ever have brought them to their present state of mind. What then did bring them?—what new thing, since Belgium, since Louvain, since the Lusitania, since Verdun?

The answer can be summarized in two words: Deportations, devastations. Since Verdun France has witnessed the wholesale enslavement of free peoples in the conquered provinces. Since February she has looked upon her ravished territory and listened to the tales of its liberated inhabitants.

All that went before—all the brutal conduct of a war supplanting accepted polite warfare—all the slaying and ravishing, the looting and burning, the breaking of faiths, the atrocities heaped to pile up conviction; but the French human mind clung—as the American human mind still clings—to the desperate belief that all this might somehow be accounted for by a misled populace, a panic madness and the sporadic brutality born of war. War being itself the great outrage, we were fond of saying, all soldiers do mad things under its sway. Not until brought face to face with brutality organized into a system, cruelty reduced to a science, a coldly calculated and ruthlessly executed program for the destruction by extra-military measures of a whole people, physically, morally, politically and economically, could normal mankind accept such truth for truth.

• • • Even now it is still our American belief that deep down in the German soul is a kind of imprisoned brother-soul which, as the President has said, we dimly feel ourselves conscious of fighting to deliver along with the rest of Germany's victims. For this fond belief of ours we are acquiring no present merit—whatever may be the future of it! The German soul does not desire to be delivered by us, is not grateful; and France, politely tolerant of our amiable weakness, waits grimly for this fond illusion, too, to be dispelled. If we are reasonable, we cannot expect Europe, reduced to a shambles by the German, to feel otherwise; and certainly if we can be patient with that darkly-enchanted German soul we can be something more than patient with the illumined soul of a France blinded, if anything, by excess of light—that light which streams from flames of sacrifice and backward from the starlike track of the escaping souls of Youth. • • •

But worse than all material destruction was the destruction of the human

material. The German rule of the occupied territory can be conveyed only by borrowing Mr. Brand Whitlock's words concerning the same thing in Belgium—that it is “enough to make one despair of the future.” The deportation of young girls; the enforced labor of men, women and children; the iron regulations; the excessive toll—from four to eight, with brief respites—the penalties—imprisonment and bread and water, with flogging of children—the petty tyranny, the robbery; the brutality—these things must be heard on the spot, and heard thus calmly stated, for the human mind to be able to take them in. When at parting a single halting word of personal sympathy could not be borne, we were quietly begged to remember that our hostess considered herself “one of the very most fortunate of all.”

Such today are the women of France. But the composure of the French people in its totality, the *poilus* and the civil population, is a thing unique; there is something frightening in it. There is also something contagious. As you live on in France it grows harder and harder to speak or write of the things that are absorbing everybody's whole attention. This is not apathy—it is an inner concentration on an end. Words kill no Germans, we have found, and the German has himself reduced the whole present duty of civilized man to that one tragic necessity.

If nothing but killing can save the whole planet from becoming one vast *pays dévasté*, ruled over by the brutality of Prussian militarism, evidently the stern business must go on, without passion, without malice, until we have killed the necessary number. Not because they are Germans, but because they are momentarily the enemies of humanity. I said it was impossible to pity France, but it is very possible to pity Germany. Pity, however, has nothing to do with desperate necessity of the moment. Mankind is fighting for freedom; the two ultimate things are engaged!

Probably there is not a woman in France today, however gentle, who would not go willingly into the trenches and take her share in the killing of that which threatens all motherhood, all womanhood, all childhood—yet all the time with a great pity in her heart. Certainly women at all noble-minded would rather go into the trenches than stay behind and incite others to go—our present harder task. Some of us are driven to envying our brave Russian sisters. But hard or easy matters nothing now—we are all alike convinced that it is better that not only the German race, but the entire human race should disappear from the planet in a final affirmation of man's will to freedom than to drag on in Prussian chains.

Those who think otherwise are those who have not looked on at that Prussian system at work and who lack imagination to conceive it. They have not seen the people of the liberated regions arrive in groups, dumb and terrible, like hunted animals, almost dehumanized by misery. Of mothers whose young daughters have been torn from them, the tongue lacks language to speak. One wonders, as one listens, that there is a woman left sane where the German army has passed.

### THE WAR SCARS OF THE WOMEN.

And here let me say, if after this war the women of the world are not heard from, then is all prophecy vain. We hear—hear endlessly—of the valor and the sufferings of the men, and neither can be overstated; but the agonies and valor of the women cannot be stated—until the war is over. Then some one woman or all womankind will bring in the indictment which the war is silently maturing in the dumb souls of millions of women. The men of the world are preparing to settle that world presently, round a table, by themselves, as they have settled the world down all the ages. Never in that world were the men of the world so loved, so admired, so nearly idolized by its women as they are

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at this moment; we can hardly look on them unmoved, so ennobled do they seem to us by their sacrifices, by their devotion to something besides ourselves. Yet if the men think they are going to settle the world quite by themselves after this war, surprises are in store for them. War, which has cost them much, has cost woman infinitely more.

For every broken man's life there are at least two broken hearts of women; for every mutilated soldier there is a woman who has suffered worse than mutilation. And there is this difference between his wounds and hers—his will heal and the scars remain his glory; even her scars must be concealed, and her cross of war is not given as a decoration—she has been nailed to it bodily and carries the stigmata in her soul. No woman can forget.

It is the secret knowledge of these things carried by each man in his heart that makes the Frenchman now look on the German as he does—as something no longer of human brotherhood—and makes him smile a little bitterly at our innocence, as he regards it, of the German nature. It is not for us to flaunt a superior virtue here—for us who have seen nothing, suffered nothing. For three years the Frenchman has been studying that nature at close hand, in its every brutal and lawless exhibition. We at most have read—and doubtingly—of these things; he has felt them in the flesh dearest to him.

There is no need to exaggerate. Only a fool imagines all the atrocities in this war will have been German atrocities; war begets atrocities in the atrocious exactly as peace does; but the atrocious system is a Prussian product—"made in Germany."

And here I should speak of another singular feature displayed by the German character in this war, which rarely is spoken of, though widely known, because it can only be decently hinted at. Nevertheless, it ought to be spoken of, for it lends further color to the most hopeful view we can take of Germany's case today—that there is in it something profoundly pathological. Wherever the German has been he has left a trail of filth. Nothing has more deeply impressed the French mind than the exhibition of this trait.

## TWO NEW SHIPBUILDING PLANTS PROPOSED FOR BRUNSWICK.

Twelve All-Steel Steamships Contemplated as Early Output of a New Brunswick Shipyard.

Brunswick, Ga., September 12—[Special.]—Announcement has just been made that another shipbuilding plant will be established in Brunswick, and it is certain that still another will soon begin building a plant. These two additional plants will give Brunswick seven shipyards.

Capt. Rosendo Torras, for many years a prominent lumber exporter of Brunswick, has given out plans for the organization of the Glynn Shipbuilding Co., to be organized locally with a paid-in capital of \$100,000, with privilege of increasing to \$500,000. Arrangements have been made for lease of 500 feet of waterfront on Academy Creek from the Atlantic Coast Line Railroad. On this site, which is well adapted to the purpose,

work will begin as soon as equipment can be secured on one, and perhaps two wooden schooners. Barges and lighters will also be built by this company, the promoters realizing that the present demand for both barges and lighters is excellent, with every prospect that there will be an enormous demand for both before long, because of the fact that so few shipbuilding yards are building them.

With Captain Torras in the Glynn Shipbuilding Co. will be associated an experienced shipbuilder now with one of the established companies in Brunswick.

Announcement will be made this week of plans for the formation of the other company, which probably will be named the Brunswick Shipbuilding Co. It is understood that Capt. John H. Leo, the founder of shipbuilding south of Hampton Roads, and well known in shipbuilding circles as the builder of the Glynn, has resigned his position as manager of the American Shipbuilding Co.'s plant, and is now actively at work on plans for the organization of the new company. With him will probably be associated James S. Bralley, Jr.,

## SETTLING FREEDOM'S FATE.

And the French are very calm observers. It is never anywhere the usual costs of war they dwell on; such things are mentioned with a "But that perhaps was considered a military virtue—or necessity," and they savor with apparent relief upon an act of chivalry: The humane surgeon; the soldier shedding tears as he fulfills a hard order—which yet he always fulfills; the officer who shoots down his own trooper found committing violence. These things are gratefully recorded. But over and over the French mind returns to its marvel at the extra-barbarous and the super-unclean. In all that, so universally corroborated, there seems something not sane.

Such as it exists—brutal, unclean, rapacious, and cruel beyond words—the Prussian military system, with all it implies, asks and has asked for three years nothing but opportunity to be applied also to America—with the ready co-operation of whatever we have of unassimilated Prussian in our midst. Nothing through these three long years has stood between us and it but England's navy and the glorious army of France and her allies. American women, American children, have been sheltered beneath the folds of the allied flags.

This would be reason enough, were there no other, for calling our own armies and enlisting our youth. American men can no longer stand by while the men, the youths, the mere boys of other nations defend their women, their children, their flag. But it is far and beyond all this. American women and children—America itself—are but side issues of the greater matter now; we have long passed beyond the question of saving any country or any group of countries. The fight now is for world-wide things, for the entire human race, for the planet itself—which will not be worth living on if Germany wins. Life without freedom—who would consent to live it?

The fate of the far plains of Missouri and Kansas, of the little mining towns of Montana, of the charmed coast of California, of all the stately chain of our great cities—is linked absolutely with that of the ruined territory, the *pays devasté* of France. If we save the one we save the other; if either is lost both are lost.

who bought the schooner Glynn from the Brunswick Shipbuilding Co. last spring. The capital will probably be fixed at \$60,000, with privilege of increasing to a much larger amount. Captain Leo's intention is to build at once a four-mast schooner, and it is likely that a site owned by the Yaryan Rosin & Turpentine Co., of which Mr. Bralley is the general manager, located on Terry's Creek, will be used.

With a large hydraulic dredge and three piledrivers and several hundred laborers at work, great progress is being made on the shipbuilding plant of the United States Maritime Corporation on Back River. A large acreage of the marsh waterfront has already been filled in along Back River, which is quite wide and very deep, and the dredge is now deepening and widening the lower portion of Clubb's Creek, where it empties into Back River, in preparation for the building of finishing docks and docks for handling material. A roadway about 75 feet wide is being built from the waterfront to connect with the Dixie Highway, about half a mile away. This road will be used by the Atlanta, Birmingham &

## LAYING FOUNDATIONS FOR GREAT SHIPBUILDING PLANT AT MOBILE.



KELLY-ATKINSON CONSTRUCTION CO.'S SITE AT MOBILE, ALA., WHERE 18 STEEL AND WOOD COMPOSITE SHIPS ARE TO BE BUILT AT APPROXIMATE COST OF \$10,000,000 FOR THE UNITED STATES SHIPPING BOARD. "FOREST OF PILING" SHOWS FOUNDATION WORK FOR SIX MARINE WAYS TO BE CONSTRUCTED. MOBILE RIVER IN THE BACKGROUND.

Atlantic Railway Co. for a spur track it is building into the plant and by the shipbuilding company as a wagon and automobile road. Work has already commenced on driving of piling for six launchways, on which six wooden steamers will be built for the Government under contract, as the first work of the new plant, which will make extensive additions for a permanent plant for building steel vessels. The company has announced its intention of putting in two drydocks, to be used for marine repairs.

The Oscar Daniels Company of New York city is making preparations for a quick start on its shipbuilding plant to be erected on land leased from the Atlanta, Birmingham & Atlantic Railway, and it is stated that work will commence immediately on the signing of a contract by the Emergency Fleet Corporation, which is expected will be done this week. It is understood that the contract will call for the building of 12 all-steel steamships of 9500 tons dead-weight capacity, to be built of fabricated steel.

Plans are now being worked out by Brunswick people for building houses on an extensive scale to accommodate the several thousand additional mechanics and their families who will be brought to Brunswick this fall to work in the shipyards. Already considerable building is under way or about to begin, and it is expected that adequate housing will be provided as the necessity arises, as both rents and ground values are abnormally low in Brunswick, and there will be a fine margin for profit in advancing values of real estate as well as in rents, which will be advanced to a basis that will give a reasonably profitable return on the investment.

#### Government Shipping Board Proceeding With Plans to Build a Fleet.

Washington, D. C., September 10—[Special.]—A review of the work of the United States Shipping Board within the past six weeks, or since the assumption of control by Edward N. Hurley as chairman of the board and Admiral Capps as head of the Emergency Fleet Corporation, shows that it has been one of unbroken progress toward the construction of a great American merchant marine.

The first two weeks of the new control were devoted to a clearing of differences that had arisen under the management of Denman and Goethals and a determination of details of activities along which the two new guides could move to their mutual satisfaction and in conformity with their announced slogan to "build ships, not talk."

The full month that followed has been one of accomplishments, without a hitch or controversy.

Foremost in these achievements has been the letting of contracts for 200 fabricated steel ships.

Three Government shipyards, located at Newark, N. J., Chester, Pa., and Hog Island, Pa., are now in course

of construction. Private firms will build the steel ships for the United States in these yards.

The Shipping Board within the same period has taken over 1,500,000 tons of allied vessels now under construction on ways in this country.

Plans formulated, but not yet put into effect, will cut ocean freight rates from 60 to 75 per cent. Under this plan a chartering board will have supervision over all charters made by American shipowners. This gives the Shipping Board virtual control of freight rates.

Merchant ships on the Great Lakes, ordinarily idle during the winter months, are being moved to the coast for trans-ocean service. It is expected that 40 or more of these lake vessels will be plying the Atlantic before winter arrives.

Oceangoing tugs will be placed under central control. This action will increase efficiency and standardize rates.

A proposition being considered is the taking over of the 500,000 or more tons of neutral shipping now being constructed in American shipyards.

Under the program of the Shipping Board, wooden ship construction is now in progress in Southern shipyards, as follows:

At Jacksonville, 28 ships.  
At Savannah, 20 ships.  
At Houston, 18 ships.  
At Beaumont, Tex., 12 ships.  
At Hampton, Va., 4 ships.  
At Brunswick, Ga., 10 ships.  
At Orange, Tex., 12 ships.  
At Mobile, 26 ships.  
At Moss Point, Miss., 4 ships.  
At Moorehead City, N. C., 2 ships.  
At West Point, Va., 8 ships.

The Shipping Board not only has taken these measures to meet the emergency conditions created by the war, but also contemplates a policy that looks to conditions that will follow. Its policy in this respect has in view the establishment of a permanent American merchant marine, flying the American colors and prepared to take a commanding position in the commerce of the world after the war is over.

#### Southern Pine Mills Expected to Furnish Half Billion Feet for Shipbuilding.

New Orleans, La., September 7—[Special.]—Notification has been received by the Southern Pine Emergency Bureau from the United States Shipping Board that Southern pine manufacturers will be called on by the Government to furnish during the next 12 months timbers for the construction of 100 more wooden ships, in addition to the 144 schedules which had already been placed with mills, 109 of which are now being cut.

This means approximately half a billion feet of timbers will have to be produced for the Government in

the Southern pine territory within a year. Four hundred million feet will go into ships and one hundred million feet will be needed for ways, docks, props, houses, etc., at shipbuilding sites.

Announcement to this effect was made here today by F. L. Sanford of Zona, La., who is now in New Orleans on his way to Washington, where he will temporarily take charge of the Washington office of the Southern Pine Association, succeeding F. W. Stevens of Bagdad, Fla., who has asked to be relieved to return to his private business.

Mr. Sanford is of the opinion that it will be impossible for Southern pine mills to get out 100 more ship schedules such as are now being furnished at present prices without doing so at a loss.

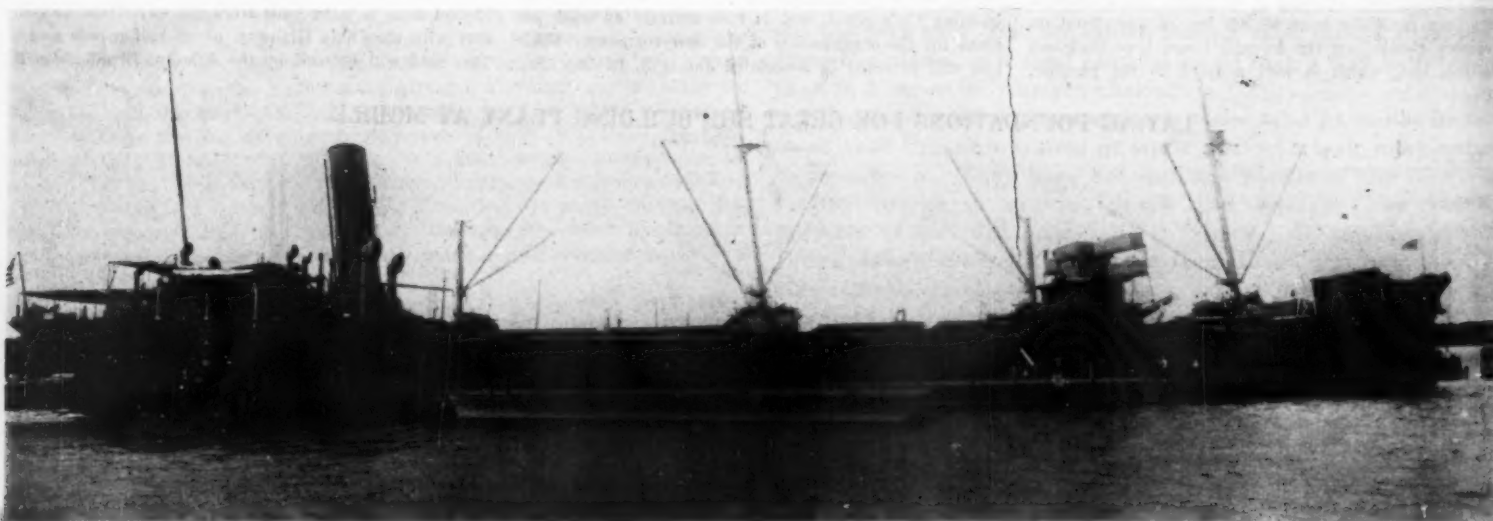
#### Mobile's Shipbuilding Plants Getting Ready for Construction.

Mobile, Ala., September 10—[Special.]—The United States Steel Corporation has caused another flurry in Mobile real estate by purchasing 400 lots in North Mobile for a consideration of \$14,000. North Mobile is close to the 11,500-acre shipyard site of the Steel Corporation. Only in the recent past many owners of North Mobile lots let them go by default for taxes. However, when the first option of the Tennessee Land Co., the Steel Corporation's subsidiary, was recorded, there was a rush to reclaim this North Mobile property.

It is not believed here that the Steel Corporation will begin its real Mobile development inside of 12 months. It is understood that the Fairfield plant, near Birmingham, will be given first attention, so that material for the Mobile shipyards will be available. In the meantime, the civil engineers employed by the Steel Corporation are busily engaged laying boundaries at Chickasaw and placing monuments. The engineers began actual work last week. These engineers are living in three houseboats on Mobile River. About 30 men are in the party. Under this arrangement they can easily move from place to place along the big tract.

The greatest activity prevails in Mobile's shipbuilding circles—at the plants of the Kelly-Atkinson Construction Co., the Alabama Drydock & Shipbuilding Co., the Henderson Shipbuilding Co., the Murnan Shipbuilding Corporation, and even at smaller plants. The Kelly-Atkinson Company is driving piling for the six launching ways for the 18 steel and wooden vessels contracted for with the United States Shipping Board. Several carloads of heavy timbers have been delivered. Within a few weeks the work of placing horizontal timbers on the caps of the piling will begin. Actual building of the first vessel by this company will probably begin before the end of the month. Five more keels will be laid in rapid succession. Hundreds of expert ship carpenters and other skilled workmen will be cutting and fitting parts within a few weeks at the

#### TYPE OF LARGE OCEAN-GOING VESSEL NOW MAKING THE PORT OF JACKSONVILLE, FLA.



U. S. SHIP "HEWITT," 9000 TONS REGISTER, 28 FEET DRAFT, WHICH LEFT JACKSONVILLE, FLA., RECENTLY FOR FRANCE LOADED WITH 2500 60-FOOT PILING AND 1,400,000 FEET OF WHARF TIMBERS.

The Hewitt is the largest vessel that ever called at the port of Jacksonville, and demonstrates that the port is available for large ocean-going vessels. The cargo of the Hewitt was loaded at the Municipal Docks and Terminals, which cost the City of Jacksonville \$1,500,000 to complete. The Hewitt is one of three similar sized ships which will load lumber cargoes at this port for the United States Government in France.

Kelly-Atkinson plant. Lumber for the \$50,000 machine shops has been delivered. The machinery will be operated by electricity.

The Alabama Drydock & Shipbuilding Co. has a large force of men working at full capacity. Many pilings have been driven on the newest site purchased by this long-established company, which already consisted of four large units.

The Murnan Company is driving pilings for its launching ways to begin building of four merchant vessels for the Government at a cost of \$1,800,000.

### All-Alabama-Made Steel Barges Completed at Tuscaloosa.

Tuscaloosa, Ala., September 7.—[Special].—In view of the present shipbuilding activity at Mobile, the satisfactory and economical construction recently of three steel barges by the Government at Tuscaloosa will be of interest. All of the steel and other material was "made in Alabama." Even the rails of the ways were rolled at Ensley. Ensley steel, the Warrior River and the port of Mobile will play an important part in future industrial activity in Alabama, with special reference to shipbuilding. When the interdepartmental board on the selection of a site for the nitrate plant were at Tuscaloosa, Secretaries Baker, Lane and Houston and the engineers in their party were greatly interested in the construction of the barges then in progress.

### Increase in Capital Stock to Cover Expansion of Shipbuilding Plant.

Brunswick, Ga., September 11.—[Special].—Announcement has been made by the American Shipbuilding Co. of Brunswick and New York city of an increase in its capital stock from \$50,000 to \$500,000, the increase being necessary to cover large extensions of the plant and equipment. The company has now under construction an extensive plant with eight ways, wood-working shops, and will erect a plant for fabricating steel. It has under contract four steamers for the Emergency Fleet Corporation, aggregating \$1,200,000. It is claimed that this contract will show a profit of about \$180,000. More than 1,000,000 feet of timber and lumber is now on the yards of the company.

### Brunswick Makes Claim of Having Laid First Keel for Shipping Board Fleet.

Brunswick, Ga., September 10.—[Special].—The distinction of having laid the first keel for the fleet of wooden steamers for the United States Shipping Board Emergency Fleet Corporation is claimed by the American Shipbuilding Co. of Brunswick, the event having occurred August 31. Officers of the company state that, so far as they can learn, they have started work of actual construction ahead of any other shipyard on contracts for the Government's merchant fleet; at any rate, they are sure the keel laid by them on the last day of August is the first actual construction started on the Atlantic coast.

### Wooden Ship Makes 16 Knots Per Hour.

Advises received in this country are to the effect that the City of Orange, the first wooden vessel turned out in these yards, recently averaged 16 knots per hour during 24 hours of her first trip down the Mediterranean.

### Shipbuilding to Be Shown in Moving Pictures.

New Orleans, La., September 10.—[Special].—Moving pictures are being taken by photographers for the Southern Pine Association illustrating the Southern shipbuilding industry from the felling of the giant pine trees to the completed wooden ship. A local film company is making the pictures, which will be shown by one of the largest corporations in the country.

Every detail of manufacture will be included in the scenes; the work of the logging crew in the pine forest, skidder operations, the conveyance of the logs to the mill, the sawing of the big timbers, a ship under construction, the launching of a big wooden ship, and finally a ship afloat at sea. The picture will give a vivid idea of the great industry the lumbermen have helped to create within a very short time.

struction, the launching of a big wooden ship, and finally a ship afloat at sea. The picture will give a vivid idea of the great industry the lumbermen have helped to create within a very short time.

### Shipbuilding News of the Week.

The Glynn Shipbuilding Co. of Brunswick, Ga., has been organized by Rosendo Torras and associates for the purpose of building wooden ships. A waterfront site has been leased, and plans are now being prepared for constructing the proposed shipyard.

W. L. Dunn of New York will organize a company to build shipyards at Appalachicola, Fla. His intention is to equip this plant for the construction of seagoing barges and ships, beginning operations with Government contracts.

### POTASH EXPLOITATIONS IN WESTERN CAROLINA.

Potash Spars Located Running Over 13 Per Cent. Potash—Land of Wonderful Wealth in Minerals.

Burnsville, N. C., Sept. 6.—[Special].—The writer is in the very heart of by far the largest and most varied mineral zone in the South. It has the finest mica and the greatest amount of it in the United States; the largest amount of and the best feldspar in the United States; has 16 forms of uranium ores, among these pitchblende, phosphoranylite, uranophane, samarskite, gummitite, torbornite; the tantalum ores; titanium; chrome (40 tons of the latter having been recently mined at one place); with evidences of the platinum-palladium group; nickel and asbestos.

This zone covers Mitchell and Yancy counties, from the crest of the Blue Ridge westward, and lies along the line of the Carolina, Clinchfield & Ohio Railway, extending from the crest of this oldest mountain range in all the world to the Tennessee line, near which the magnetite cranberry ore mine is located.

This is really the "Old World," physically speaking, for one of the greatest geologists says that the first land which appeared "above the waters" was Mount Mitchell, in sight of this tiny mountain town. Mount Mitchell is 6711 feet above the sea level, and is the highest peak east of the Rocky Mountains.

North Carolina has never completely explored this treasure-house. What is needed is deep chemical research to get at the facts; such research as Austrians have made. Four years ago two Austrians were here, sent by their Government to look for radium ores. They brought with them a kind of spectrum, of which their Government, it is said, alone knows the secret. It is used to concentrate the sun's rays in testing radioactive material. They kept their work a great secret. They found no high-grade radioactive material, but a great deal of it at a place in Mitchell known as Chalk Mountain. They came here because the conditions are somewhat similar to those in Bohemia. They seemed to have the idea that it was to be found only in the oldest rock formations of the world.

The chrome is mined on the Ray property, five miles from Burnsville, where the work began two years ago. It is interesting to know that the largest deposit of chrome was near Baltimore, where it began to be mined in 1827, and by 1877 it was all gone to Europe. Not until the last 30 years has the United States begun to need chrome, but it has had to import it from Asia Minor, from which it is now shut off.

A process greatly needed is one to recover the chrome content from the semi-serpentine, of which there is considerable in western North Carolina, mainly in Mitchell, Yancey, Clay, Watauga and Jackson counties. It is partly held in solution.

There are millions of tons of the spars, white, mainly, but some forms of pink and blue, with no sulphur.

The potash spars here run from 8 to 13 per cent. of potash, the highest being 13.40. The decomposed feldspars are shipped as kaolin to all the great potteries in the chain between Ohio and New Jersey, and to the soap-making plants and to makers of bathtubs, etc. The annual shipments total now 20,000 tons from Mitchell and Yancey, mainly from the Spruce Pine-Penland district in Mitchell. This industry is only five

years old and gives a revenue of about \$100,000 annually. The greatest feldspar development is between Wiseman's Ridge, in Mitchell, and Seven-Mile Ridge, in Yancey, a distance of 14 miles.

The biggest of all the potash spar developments is now actively in progress. New York men are in this zone buying properties in the vicinity of Bandanna, in Mitchell county. They have secured two tracts of 60 acres—the Howell and the Jarratt—and are picking up other holdings for the potash content. It is the current report that they will build a plant in a valley near Bandanna and on the Toe River alongside the Carolina, Clinchfield & Ohio Railway, with a water-power development on the same stream at Booneford, three miles above, which will perhaps give 600 horsepower.

Of the more than 900 known mineral forms in the world fully half are found in the two counties of Mitchell and Yancey, in a radius of 40 miles. Perhaps no other statement could so fully set out the richness of this zone, where nature had one of her biggest laboratories.

Most of this wealth is west of the Blue Ridge. Of course, there is no zinc, because there is no limestone in this zone. Lately there have been found near the crest of the Blue Ridge some fine specimens of lead molybdenum.

Apart from the minerals, Mitchell county has two important gem mines; of aquamarines and beryls. Both are near Spruce River, and some \$25,000 worth of the gems have gone out. It is the most fruitful section in the United States for these. Many other gems are also found.

FRED A. OLDS.

### Extension of Galveston Seawall Proposed.

Galveston, September 5.—[Special].—The question of extending the east end seawall from the present eastern terminus of the seawall to Fort San Jacinto, at the entrance of Galveston harbor, took a step forward with the approval by Col. J. C. Sanford, division engineer in charge of rivers and harbors, of the plans and details of work as they stand at present.

Colonel Sanford, who came here for a conference with the district engineer, Major Johnston, expressed satisfaction with the engineering features of the project. The sole obstacle in the way of proceeding with the construction is the failure of the State to relinquish its claim upon the State quarantine station site of three acres. This, it is believed, will be accomplished at an early date, as the Governor has signified his willingness to accept the \$20,000 which the Government has agreed to pay for the site and buildings. A legislative enactment, however, will be necessary.

An appropriation of \$200,000 to cover the initial stages of the seawall extension was made by Congress some while ago, and is available. The county has levied a special tax to make up its share of the project, \$650,000, and the proceedings revolving around the right of way have been cleared up.

It is the belief of the local engineer that it will be necessary for the Government to do the work, as it is not thought that satisfactory private bids can be obtained under present conditions, although bids will be asked for.

### Corpus Christi to Can Surplus Vegetables, Etc.

Corpus Christi, Tex., September 7.—[Special].—Nueces county, for many years one of the principal vegetable-growing counties of this section, soon will have an outlet for surplus stock, announcement being made yesterday that the cooking, packing and cold-storage machinery of the Corpus Christi Packing Co. has been received and installed, and that the plant will be in operation at an early date. The plant will have capacity of 43,200 cans a day, sufficient to care for surplus sea foods, fish and shrimp as well as vegetables.

J. B. Oatman, Duke Oatman and P. O. Cox, all local men, are incorporators and principal stockholders of the company.

The Economist (London) estimates that of 5,500,000 tons of German shipping in 1914, 1,250,000 tons have been seized or destroyed and 1,000,000 tons are still held in neutral ports.

# Embargo on Cotton, Government Says, Should Not Adversely Affect Price

DEPARTMENT OF AGRICULTURE RECITES FIGURES TO DISPROVE STATEMENTS AS TO LARGE AMOUNT OF COTTON LIKELY TO BE INVOLVED—CLAIMS THAT EFFECT WILL BE INCONSEQUENTIAL—LEVEL OF PRICES NOT LIKELY TO BE LOWERED, OPINION EXPRESSED.

[Special Correspondence Manufacturers Record.]

Washington, D. C., September 10.

That the so-called embargo on cotton will have little, if any, effect upon the gross movement of the South's greatest product is the opinion of Clarence Ousley, Assistant Secretary of Agriculture, who, after an exhaustive analysis of the situation, has made public his reasons for this belief.

The embargo to which Mr. Ousley refers went into effect as a result of a Presidential proclamation on August 30, on and after which date cotton exports, in common with an enormous variety of other raw and manufactured material, were barred from Norway, Sweden, Denmark, Holland, Switzerland, Spain and all of their colonies, as well as from all enemy countries and the portions of the allied countries now occupied by the military forces of Germany. The embargo also extends to Greece, Bulgaria, Turkey and other countries which are in the war, but not at war with the United States, or from which it is possible for the enemy to obtain such materials by transshipment.

These regulations, in accordance with the terms of the proclamation, are subject to such limitations and exemptions as the President may prescribe. As generally understood, this by no means prevents the exportation of many of the materials, including cotton, to the neutral countries in order to meet the actual needs of their peoples.

As Mr. Ousley points out in his study of the figures, the suspension of cotton exports to Germany and Austria lack comparatively little of accounting for the difference between exports now and before the war. Last year's exports of cotton to all countries other than France, Italy, Russia, England, Canada and Japan were only 722,134 bales. As these countries are not involved in the embargo recently imposed, it becomes evident, as Mr. Ousley indicates, that a statement recently given circulation that the embargo would cut off the market for 4,000,000 bales is without the slightest foundation in fact.

Mr. Ousley, in his statement, says:

"The export of cotton to neutrals is not forbidden; it is to be confined to demonstrated needs for actual consumption in order to prevent cotton from reaching our enemies, the Central Powers. Last year's exports to all countries other than France, Italy, Russia, England, Canada and Japan were only 722,134 bales, and yet I read a statement in a newspaper a few days ago to the effect that the embargo would cut off the markets for 4,000,000 bales."

The official figures covering cotton exports for the season 1913-1914 (the year before the war) and the season of 1916-1917, compiled by the United States Bureau of Foreign and Domestic Commerce, are given as herewith:

Country.	Fiscal year ended June 30, 1914. Quantity. Bales.	Fiscal year ended June 30, 1917. Quantity. Bales.
Europe:		
Austria-Hungary	101,786	.....
Belgium	216,825	.....
Denmark	100	.....
France	1,091,137	1,023,127
Germany	2,785,220	.....
Greece	1,650	.....
Italy	517,011	660,571
Netherlands	34,614	.....
Norway	3,600	.....
Portugal	6,323	.....
Russia in Europe	94,726	45,566
Spain	285,158	306,262
Sweden	48,609	.....
United Kingdom:		
England	3,394,241	2,793,388
Scotland	1,965	.....
Ireland	55,760	.....
Other Europe	.....	232,771
North America:		
Canada	146,992	186,849
Guatemala	1,120	.....
Mexico	31,948	5,030
Newfoundland and Labrador	9	.....
West Indies—French	10	.....
South America:		
Venezuela	65	.....
Asia:		
China	8,757	.....
Hongkong	290	.....

Country.	Fiscal year ended June 30, 1914. Quantity. Bales.	Fiscal year ended June 30, 1917. Quantity. Bales.
Japan	336,908	514,530
Oceania:		
Philippine Islands	450	.....
Africa:		
British South Africa	26	.....
Other countries	.....	118,071
Total	9,165,300	5,947,165

"The total exports before the war were 9,165,300 bales," the report continues; "last year they were 5,947,165. Before the war exports to Germany were 2,785,220; to Austria 101,786; total, 2,887,006. The difference between the total exports the year before the war and last year is 3,218,135. It will be seen that the suspension of exports to Germany and Austria lacks comparatively little of accounting for the difference between exports now and before the war. The table shows that European neutrals last year received 590,033 bales. Where are the markets that would take 4,000,000 bales but for the embargo?"

"It is interesting to observe that exports to England last year were 2,793,388, compared with 3,394,241 for the year before the war, or a difference of only 600,853, while exports to Italy and Japan increased 321,182 bales. It is plain to be seen that other countries are supplying such small part of the trade as England has lost, and that the substantial difference between the total exports last year and the year before the war is the lack of cotton formerly supplied to Germany and Austria and the savings or deprivations practiced generally on account of the war.

"Therefore, it is obvious that the so-called embargo on the shipment of cotton to neutrals in itself will not materially decrease the total American exports and should not appreciably affect prices this year.

"With the present crop of 12,499,000 bales, with a record of 7,491,086 bales taken in the United States last year, with an unprecedentedly small carry-over from 1916-1917, with Liverpool and Continental stocks nearly 500,000 bales less than last year, with stocks of dry goods low everywhere and a certain increase of demand in the United States due to the mobilizing of 2,000,000 soldiers within 12 months and supplying them with khaki and tents, there is no reason whatever for doubt that there will be demand for all the American cotton in sight available for export. Last year American takings were 7,491,086, and last year's exports 5,947,165, making a total of 13,438,250 bales, or 939,250 more than the estimated crop of this year.

"From these facts it would appear that a crop of 12,500,000 or even 13,000,000 bales this year will not exceed the world's eager demand, unless some unforeseen calamity should befall.

"To summarize the situation, it appears that, if present conditions of war and transportation continue, the supply of cotton is well within the world's demand, and the embargo will not materially affect the movement of exports. The growers of cotton being apprised of the truth of the situation and being as capable as the traders of appraising the chances against them and for them, are likely to insist upon prices in keeping with the high levels of these times."

## Europe Second to North America in Volume of Imports to United States.

The imports into the United States for the fiscal year ended June 30, 1917, aggregated \$2,659,355,185, against \$2,197,883,510 in 1916 and \$1,893,925,637 in 1914, the previous high-record year. For the first time Europe, which has held first place in selling goods to the United States, declined to second place, North America taking first place, according to a statement

issued by the Bureau of Foreign and Domestic Commerce, Department of Commerce. In 1914 the imports from Europe were valued at \$895,002,868, or 47½ per cent. of the total, while the imports from North America were \$427,399,354, or 22½ per cent. of the total. In 1916 imports from Europe were 28 per cent. of the total and those from North America 27 per cent. Of the total imports of \$2,659,355,185 in 1917, \$610,470,670, or 23 per cent., were from Europe, and \$706,112,537, or 28¾ per cent. from North America. In 1917 the imports from Europe showed a decrease of \$285,132,198 from the figures for 1914, and the imports from North America showed an increase of \$338,713,183—a gain of 80 per cent. for North America against a loss of 32 per cent. for Europe.

Imports from South America and Asia in 1917 showed a gain of more than 100 per cent. over 1914, the increase from South America being 143 per cent. and from Asia 114 per cent. Imports from South America were \$222,677,075 in 1914, \$391,562,018 in 1916, and \$542,212,820 in 1917. Imports from Asia were \$286,962,486 in 1914, \$437,181,464 in 1916, and \$615,217,463 in 1917. Imports from Oceania in 1917 showed a decrease from 1916, but an increase over 1914. In 1914 the imports from Oceania were \$42,144,398; in 1916, \$96,225,991, and in 1917, \$95,328,379. Imports from Africa in 1917 gained 213 per cent. over 1914. They amounted to only \$19,149,476 in 1914 as against \$64,765,745 in 1916 and \$60,013,316 in 1917.

Of North American countries Canada showed the greatest gain in the 1917 imports as compared with those of 1914. The increase amounted to \$160,000,000 and was due to large imports of wheat, copper, paper, boards and wood pulp. Imports from Cuba gained \$122,000,000, owing chiefly to the rise in the value of sugar, which increased from \$98,394,782 in 1914 to \$204,521,140 in 1917, although the quantity decreased from 4,926,606,243 to 4,669,079,398 pounds in the same period.

Imports from Argentina increased by over \$100,000,000 in value, chiefly in wool and hides. Imports from Chile showed a large increase, from \$25,750,000 in 1914 to \$113,750,000 in 1917, a gain of 350 per cent., chiefly in nitrate of soda, copper and tin. Imports from Brazil in 1917 showed a gain over 1914 of \$51,000,000, principally in coffee, hides, rubber and manganese.

Imports from China increased by more than \$60,000,000 chiefly in hides, silk and wool, while imports from the Japanese leased territory in China, which amounted to only \$230,000 in 1914, rose to \$6,000,000 in 1917, representing principally soya-bean oil. Imports from the British East Indies increased from \$112,000,000 in 1914 to \$217,500,000 in 1917, the gain being chiefly in burlaps, hides, rubber and tin. Imports from Japan increased from \$107,300,000 in 1914 to \$208,000,000 in 1917, more than half of the increase being in raw silk. Imports from the Philippines increased from \$18,125,000 in 1914 to \$42,500,000 in 1917, the gain being in manila hemp, sugar, copra and coconut oil. Imports from Australia showed a decrease of \$4,500,000 in 1917 as compared with 1914.

Imports from British Africa and Egypt showed the largest gains in African countries. Imports from British Africa, principally cocoa, hides and wool, increased from \$3,956,581 in 1914 to \$25,293,667 in 1917. Imports from Egypt increased from \$13,311,233 in 1914 to \$29,728,445 in 1917, a gain of \$16,417,212, of which \$16,258,327 was in cotton.

## The Cotton Movement.

In his report of September 7 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 38 days of the season was 660,818 bales, a decrease under the same period last year of 148,476 bales. The exports were 411,097 bales, a decrease of 54,203 bales. The takings were, by Northern spinners, 181,071 bales, an increase of 76,500 bales; by Southern spinners, 307,591 bales, an increase of 9478 bales.

The Kansas City Star states that over 900,000 acres of wheat-growing lands in Western Kansas were left uncultivated this year due to lack of labor.

# Development of American Export Trade Waiting on Passage of Webb Bill

[Special Correspondence Manufacturers Record.]

Washington, D. C., September 10.

The Webb Export bill, which will permit combinations of American business interests to engage in foreign trade, bids fair to receive the favorable consideration of Congress at the present session. It was reported in the latter part of August, with minor amendments, to the Senate by the Committee on Interstate Commerce. It had already passed the House.

Back of the bill has been the support of practically all of the progressive business men of the country, who are cognizant of the almost insuperable difficulties in attempting to make headway in the struggle for foreign trade under present restrictions.

It has been the opinion of some of the Government bodies, notably the bureau of foreign and domestic commerce of the Department of Commerce, that existing legislation does not necessarily forbid the pooling of their interests by trade agencies in this country in the effort to capture America's share of the foreign trade of the world. This opinion, however, has never taken the form of a definite declaration, or even of positive advice. The result has been that the concerns engaged in any particular line of manufacture have feared to enter into combinations in the development of foreign trade on account of the danger of coming into conflict with the anti-trust laws.

With the prospects of the passage of the Webb bill, which is designed to remove absolutely any possibility of these restrictions applying to combinations for the expansion of trade outside of the United States, plans are now being developed to make the best use of the opportunities that will thus be given.

The new field of activities opened will call for thousands of live young business men to serve as the advance agents for the introduction of American-made goods into other countries, where European nations have had considerable start. Germany, especially, had before the present war made enormous headway through the stimulus given to her legitimate aspirations for industrial supremacy by governmental encouragement and support in every manner. Unhappily, the whole was bound up with her scheme for domination in other ways, with regard to which there have as yet come no hints or relinquishment. In fact, these have been intensified even during the course of the war, as was indicated a few months ago in the report that hundreds of German youth, both boys and girls, were studying the Turkish language with a view to having the human material available for the industrial exploitation of the vast regions to the southeastward, once Germany's dreams of conquest and occupation from Berlin to the Euphrates have become an accomplished fact.

With equally wise intent and better prospects of fulfillment, the plans for the education of American youths in the complexities of foreign trade are now taking something like definite form. The State Department has evidenced deep interest in the subject. Through its consular service especially it now gives much valuable information to American business men regarding the peculiar likes and dislikes of foreign purchasers of goods. These involve questions of color, form and other features that vary with the different countries, but all are important as matters of detail to be studied out.

Training for foreign service has recently been made the basis of a bulletin issued by the Bureau of Education of the Department of the Interior. Its contents cover a conference held not long since in Washington. This conference was arranged by the Commissioner of Education in co-operation with the Director of the Pan-American Union, the Director of the Consular Service, and others. The bulletin contains in full the addresses of the Director of the Consular Service and the President of the National Foreign Trade Council.

Stress was laid in the conference on the importance of a satisfactory course in commercial education and a knowledge of the technique of commerce as an equipment for the consul and diplomat of the future. Speaking of the organization and administration of the consular service and the qualifications for entrance, its director, Wilbur J. Carr, does not consider extended business experience essential to a successful consular career. In this view he opposes the views of many

business men. But there is logic in the point made by Mr. Carr that many other qualifications are requisite, and that a large number of trained business men could not be obtained by the Government so long as private business holds out much greater promise of financial success than does the Government service.

With slight variance in views, those participating in the conference were in agreement as to the vital importance of meeting the foreign situation. The passage of the Webb bill will greatly stimulate the movement which the conference had before it. South American trade, in particular, is the great desideratum. This presents itself as such for two reasons: Geographically, it is the natural trade to be reached out after. Still more important is the desirability of binding the countries of the Western Hemisphere into closer and more amicable relations than ever before. Fortunately, the machinations of Germany have aroused the Latin-American countries to a sense of the danger, and, by a train of events which any but the brutal and stupid diplomacy which has characterized Germany throughout might have foreseen, have paved the way for this better understanding. Of the situation as a whole, James A. Farrell, president of the National Foreign Trade Council, gives this excellent summary:

"Those who are taking the initial steps by creating export departments in their organizations and adjusting or changing their products to meet conditions prevailing in the markets they would reach are, first of all, confronted by the problem of obtaining workmen, office men, salesmen and executives trained to handle their business, a difficulty which, it is safe to say, but few companies find easy of solution. This condition prevails because the foreign trade of the United States is in its infancy, and only recently has the question of special training been considered by public men, corporations, public schools and universities.

"We are only just realizing that this is one of the handicaps we have been under in the competition with our European commercial rivals, and this is why banking, shipping, exporting and manufacturing offices are employing an ever-increasing number of foreign-born persons who acquire the requisite training in schools, universities and business offices in England, Germany and France."

These considerations alone are of a character calculated to enlist the sympathy and support of all good Americans in the movement apart from any direct interest they may seem to have in the development of our foreign trade. Under the terms of the present situation as outlined, the plan not only becomes one of good business judgment, but involves a strong element of genuine patriotism as well.

## Louisiana Sugar Planters to Largely Market High-Grade White Instead of Selling Sugar Raw.

New Orleans, La., September 7.—[Special.]—Herbert Hoover and his food control bill will, in the opinion of the leading sugar men in Louisiana, change the Louisiana sugar factories from mere preparers of raw material for the refiners into manufacturers themselves of standard granulated and other high-grade sugars, which will be sold, as a large portion of the Louisiana crop is already being sold, to customers of the refineries. It is now appreciated that Louisiana plantation goods are as good for all purposes as are the standard granulated sugar of the seaboard refining corporations.

The decision of representatives of the Louisiana planting interests to offer raw cane sugar at less than six cents means that the greatest high-grade sugar production Louisiana has ever known is to be made this coming grinding. The producers were at a loss for some time as to know just what kind of sugars they would make, but now that the differential between raws and refined is to be something like 1.35 or 1.50 cents, the advisability of manufacturing the entire crop or as much as can be made into white sugar is so strikingly apparent that two of the largest raw sugar houses in the State, making something like 30,000 bags of sugar annually, are

going to turn their entire crop of 1917 into high-grade white sugars. The report of the less than six cents offer reached New Orleans Thursday, and Thursday morning these two concerns wired one of the largest barrel companies in New Orleans to send them barrels because there would be no more raw sugar shipments by them.

One of the leading young agriculturists of the State said Thursday that he expected to see the high-grade sugar output of Louisiana this winter reach a total which will set a record thousands of tons above what the greatest production of white sugar in this State has ever been. In the lean years before the outbreak of the war in 1914, the far-sighted members of the industry were constantly advocating the more extensive manufacture of sugars which could be shipped direct to the consumers. They argued that if the refiners were making a profit on washing the Louisiana raws, the planters ought to wash them themselves and keep that profit at home. This white-sugar idea gained ground year by year, and almost every year showed a large increase in the production of high-grade sugar, but there were some concerns, representing more than one-half of the industry's production, which did not want to change. Under the sugar conditions created by the offer of less than six cents a change is imperative. Unfortunately, all cannot change now, because it is too late to make the necessary machinery installations, but they can avail themselves of an offer of the Gramercy (La.) refinery of the Colonial Sugars Co. to refine their sugar for them on toll.

Nobody in the industry today who knows its development well expects to see more than one-fourth of the output this season sold as raw sugar, and if it were not for the impossibility of getting the required machinery put in in time the percentage of raws would not be that high.

Louisiana white sugars, plantation granulated and clarified sell for almost the same price as standard granulated sugar made by the refiners, and in some instances lately they sold for greater prices than the refinery grades.

## Basis Stated for Industrial Expansion at St. Louis.

In connection with an organized effort to expand the industrial interests of St. Louis, Mr. E. Gengenbach, industrial commissioner of the St. Louis Chamber of Commerce, has presented some interesting facts in the Chamber of Commerce Bulletin of September 1.

In the course of the article, speaking on the favorable conditions that exist in that territory, Mr. Gengenbach says:

"Northern pig-iron, Southern pig-iron, Mississippi Valley hardwoods can be moved into St. Louis, combined here with low heat and power costs and ample distribution, and then reach 'in transit,' at the lowest average outbound rate, 75 per cent. of the agricultural implement market of the United States.

"Today big markets are developing in St. Louis territory.

"The Mississippi Valley is being drained and protected by levees. Over \$15,000,000 is in course of expenditure in Southeast Missouri and Northeast Arkansas in land reclamation. The value of Missouri's cotton crop, grown on this reclaimed land, this year will be in excess of \$13,000,000, and it is no farther from St. Louis than Rock Island is from Chicago. Oklahoma is producing thirteen times the oil that Pennsylvania did last year.

"These are only two examples of the new and tremendous purchasing power of additional markets that are opening up and being made available right in our own back yard.

"New zinc and lead fields have opened up recently in the Miami district that are producing more ore than Joplin. Texas is raising this year a \$400,000,000 cotton crop. Arkansas has a \$100,000,000 crop and, in addition, a wealth of pine, hardwoods and agricultural products. There are no richer neighbors than Illinois, Iowa and Kansas. The dairy industry is rapidly developing in Missouri, and the dairy industry means a regular flow of money into country banks, increased purchasing, prompt collections and larger bank clearances.

"In our industrial expansion we must look beyond our city limits and become intimately and actively associated with the development of our logical trade territory, while within our city limits we must perfect every facility of transportation, manufacture and housing."

# Maeterlinck's Analysis of the Great War

## THE HOUR OF DESTINY

By MAURICE MAETERLINCK, in Paris Figaro. Translated from the French by Frederick H. Lewis, Major, Engineers' Reserve Corps, United States Army, for MANUFACTURERS RECORD.

We may already speak of this war as if it were terminated and of the victory as if it were assured. In principle and in the region of moral certainties, Germany was vanquished at the battle of the Marne. The actual result, always slower, because it carries the weight of material things, will follow docilely and necessarily in line with these certainties. The death agony of the beast will prolong itself perhaps through weeks and months, for it has the obstinate and almost inextinguishable vitality of the carnivorous animals; but it is mortally wounded, and we have only to wait patiently, arms in hand, the last convulsion which precedes the end. The historic event, the greatest without doubt since man has had a history, is then accomplished; and, strangely enough, it appears to have been accomplished despite the precedents of history, against its laws, and contrary to its purposes. It is, I know, bold to speak of these things, and it is better to show one's self very circumspect in speculations which surpass human understanding; but from a consideration of that which the history of this earth may teach us, it would appear to have been decreed there, where the destinies of nations are written, that Germany should prevail.

It is not entirely, as we so willingly believed at the outset, the megalomania of an autocrat intoxicated with the gross vanity of a buffoon deprived of intelligence that has unchained this abominable war; it is not the bellicose ideas, the infatuation and the egoism of a feudal caste; nor is it even the envy and the impatient and systematically agitated avidity of a too prolific race, limited to a sad and ungrateful land. All these fortuitous and adventitious causes determined only the hour of decision. But the decision was taken and written, probably centuries ago, in other spheres not attained by the conscious will of man, and in which reign, over times and masses without limit, great unknown laws. The entire line, the immense curve of history, showed to anyone who tried to read its terrible and solemn hieroglyphics that the day of a new, fearful and unavoidable event was near. The theories built upon this basis by German writers during the last sixty years (notably those of Giesebrecht, the historian of Otho and of the Hohenstaufen, and of Treitschke, the historian of the Hohenzollerns) do not necessarily carry conviction, but are most impressive. And the work of these two writers, whom we do not know sufficiently, had in Germany, especially the work of Treitschke, an influence which penetrated the depths of every conscience, and greatly surpassed in effect the work of Nietzsche, which we believed to preponderate.

But let us for the moment keep silence on all that pertains to the distant past whose study will demand a space which we cannot give it now. We will not now interrogate the Empires of Otho, of the Hohenstaufen, of the Hapsburgs, in which Germany, at least as a nation and as a race, played no conscious part. Let us see what happened nearer to us, under our own eyes.

One hundred years ago, with Napoleon, France had her hour of hegemony, which she could not hold because this hegemony was the work of a prodigious but accidental genius, and not the fruition of a real and intrinsic power. Then followed the turn of England, which possesses today the vastest empire which the globe has known since Rome, controlling one-fifth of the habitable globe. But this great empire, no less than that of Napoleon, is not based upon an incontestable force, because it was only defended to this day by an army less numerous and less well equipped than that of a small nation. It thus invited, almost inevitably, the war which was made so clear in a prophetic book of J. H. Cramb, "Germany and England," which had such an acclaim in England and which merited the honor of a French translation.

It appeared then that between these two powers, France and England, both more illusory than real; (and awaiting the arrival of Russia, whose hour had not yet struck) in this hiatus of history, with one nation in its decline, or which at least appeared in-

capable of defending itself, and the other too young and still not organized for attack, that Destiny offered a magnificent place to any nation which wished to grasp it. This is what Germany felt, instinctively at first, and pushed forward by all the ill-defined forces which lead humanity; then in these later years, with an understanding more and more clear and determined. She understood that her turn had come to reign over the world, that it was necessary for her to run the risk and seize the opportunity which would present itself but once. She placed herself in order to respond to this call of Destiny, and, sustained by mysterious powers which Fate lends to those whom she calls, she responded to it, it must be admitted, in an astonishing and formidable manner. Nothing seemed lacking for her success.

A resistance a little less prolonged and a little less courageous by Belgium, a suspicious movement by Italy, a faulty maneuver on the banks of the Marne, and then Paris would have fallen. France, submerged, would have struggled to her last breath. Russia, defeated, but tiring her victor, would have finished by agreeing with her weary conqueror. The neutrals, whether they wished it or not, would join with the successful side. England, isolated, would cede her colonies in order to soothe the wounds of her invaded island. Separate and shameful peace treaties would break the ties of Justice, and Germany, ferocious, monstrous, implacable, would rise at last alone upon the ruins of Europe.

Now it appears that we have deflected this inexorable decree. It seems that we have arrested the Fate which was to be accomplished. It weighed upon us with all the weight of all the energies, indefinite but irresistible, of the past and perhaps of the future. By the greatest effort which humanity has ever opposed to the unknown gods which lead it, we may believe that Destiny has been turned back and that we have driven it to its sinister lair where human energy has never before forced it to hide in defeat.

I say "it seems," "we may believe." That is because the test is not yet completed. Even on that day when the war is terminated and the victory is in our hands, Destiny will not be vanquished. It has happened—rarely, it is true—but it has happened two or three times that a people has, as we have, deviated or turned back the course of fatality. They felicitated themselves, as already we believe we have the right to felicitate ourselves in our turn. But the outcome has not been long in proving to them that they felicitated themselves too soon. Fatality, that is to say, the enormous sum total of causes and effects which we do not comprehend, is not conquered; it is only suspended. It awaits its day and its revenge, or at least what we call its day, which may be a hundred years, when it is an affair of nations; for Fatality does not compute in the fashion of men, but like the great movements of Nature.

The question now is to learn if we shall succeed in avoiding this revenge and this day. If men and peoples were guided only by reason, if after having been many times absolute masters of their happiness and of their future they had not as often destroyed all which they had achieved, then we would and we should say that this depended solely upon ourselves. And, in fact, three-fourths of this risk is passed; the other fourth is in our power; we have only to hold fast to it.

**Almost all that pertains to the hazards of the combat are ours, and the war over our wisdom and our will shall find themselves facing a destiny which henceforth can only act again if it succeeds in blinding or perverting them. That will be the hour when all that is hidden in the mysterious word awaits us to determine whether we or it shall prevail. It is after the victory that we must really conquer; it is at the hour of peace that the true war**

against an invisible adversary will begin, and it will be a hundred times more dangerous than that other war of which we have seen too much. If, at that hour we do not profit by all our advantages, if we do not destroy forever, to its uttermost roots, the military power of an enemy who is the secret friend of the malevolent forces of the earth; if from this moment by an irrevocable pact we do not forearm ourselves against our pity, our generosity, our weakness, our imprudence, our discords and our future rivalries; if we allow, to the beast at bay, a single way out; if we by negligence accord to him a single hope, a single occasion to rise to the surface and take breath, then waiting fate, which has always a fixed idea, will regain its path and pursue its way at the head of the story, mocking over its shoulder at man once more tricked and undone.

**All that we have suffered: our ruins, our sacrifices, our tortures without name and without number, will have served for nothing, will be lost past reclaim. All will not begin over again, for nothing begins again; the happy hazards of life do not pass twice. But all, except our misfortune with all its consequences, will be as if it never had been.**

It is a question, then, of resisting an invisible enemy and mastering him until the turn of chance, for an accursed race, shall have passed. How long? We do not know, but in the rapid tale of these days it is possible that this term and this struggle will be much shorter than it would have been in other days.

At the point which man has now reached, I hope so, I believe so. He has not been master of his fate heretofore, but neither had he reached the heights he holds at this moment. There is no reason why what has not happened before may not happen now; and everything seems to tell us that man has arrived at the day when by seizing the most magnificent occasion which has been offered since he was a conscious being, he may learn at last that he may, when he wishes, hold within his own hands all his fate in this world.

### 800-Barrel Well in Irvine Field.

Irvine, Ky., September 10.—[Special.]—Interest in the Irvine oil field reached its zenith this week when the Estill Oil & Gas Co. brought in an 800-barrel well on the John M. Ashley farm near Pilot, in the north-western section of the county. This well is the twenty-third good producer on the Ashley farm of some 300 acres, the wells ranging from 100 barrels to 500 barrels daily, outside of the record well just brought in.

As a result of the rich flow on the Ashley farm a drive is being made for adjoining properties, representatives of dozens of operating companies being on the ground making efforts to obtain leases. Several new corporations are being organized in the territory surrounding Irvine, owing to the activity of wells now being brought in almost daily. Ever since the first paying well was brought in in the Irvine field more or less interest has been centered upon the territory. Leases are being extended into new territories in Estill county, while the adjacent counties are getting many test wells, with frequent good-paying strikes.

The counties of Lee, Wolfe, Morgan, Rowan, Carter, Breathitt and Powell, adjacent, are getting some good producers. Hundreds of leases are also being closed in these counties, and announcements of early drilling are being made. The fall months will show unusual activity in oil drilling throughout the whole of this territory. As a result of the oil excitement the towns in the several counties are rapidly growing. Irvine, in the center of the Estill pool, has grown from a town of less than 300 in two or three years to a city of 6000, and continues to grow rapidly.

# Sulphur Fertilization for Cotton

By COURTENAY DE KALB.

Sulphur has been demonstrated to be a necessary plant food; some plants require much of it, and some but little. Those that utilize it in their tissues will not thrive without it. The amount of sulphur that should be available is in large excess over the exact physiologic requirements of the plants. It has been shown, for example, that beans are enormously stimulated in their growth by the application of raw sulphur to the soil, increasing the normal crop from 100 to over 300 per cent. A normal crop of beans, including the bean straw, removes about six pounds of sulphur per acre. Beans and peas also need large amounts of nitrogen, and when sulphur is applied the greatly-enhanced output removes nitrogen in proportion, and this is accomplished without providing an excess of nitrogen in the fertilizer. The stimulation exerted by the sulphur has affected not only the growth of the economic plant, but it also has stimulated the functional activity of two classes of microscopic organisms that provide assimilable nitrogen in the soil, namely, the nitrifying bacteria and the nitrogen-fixing bacteria. Coming back to the sulphur requirements of plants, it may be said that a wheat crop of 30 bushels removes from the soil about 2.6 pounds of that element per acre, and the straw 3.7 pounds, making a total of 6.3 pounds. Similarly, a barley crop (grain and straw) removes 5.7 pounds, oats 8 pounds, corn 5 pounds, tobacco 8.5 pounds, potatoes 4.6 pounds, red clover hay 6.2 pounds, alfalfa hay 26 pounds, cabbage 40 pounds. In some recent experiments by Dr. P. J. O'Gara in Utah it was found that the increases in product over normal yields as a result of applying sulphur to the soil without adding other fertilizers was as follows: Alfalfa, 36.8 per cent.; barley, 52.6 per cent.; corn, 13.1 per cent.; milo maize, 182.6 per cent.; oats, 57.3 per cent.; field peas, 383.3 per cent.; potatoes, 63 per cent.; Hubbard squash, 188 per cent.; Sudan grass, 24 per cent., and wheat, 127.8 per cent. These figures are startling enough, but in some cases they are not as high as those obtained by Dr. F. C. Reimer in Oregon, who has so firmly established the merits of sulphur as a fertilizer before the eyes of the practical Oregon farmer that a large demand for crude sulphur has arisen in that State, and this in turn has brought about development of local gypsiferous sulphur deposits to meet the newly-created market. Dr. O'Gara's general deductions regarding sulphur are, first, that with an increase of sulphates in the soil (which are mainly plant foods) there is noted a decrease in carbonates; second, that there is observed a decided increase in available potash; third, that the stimulated growth of the plant when treated with sulphur is accompanied by an absolute increase in the amount of sulphur secreted, and fourth, that the sulphur content in the plant is an index to the protein content—that is, high sulphur in plants means high nitrogen, and vice versa.

The facts brought out regarding wheat were that a good normal crop removes 6.3 pounds of sulphur per acre, and that treatment of the soil with 400 pounds of sulphur per acre increased the output 127.8 per cent. A normal good cotton crop of 300 pounds lint per acre removes in the seed 3.2 pounds and in the lint 4.2 pounds per acre. Data are unavailable for other parts of the plant, but considering that the stalks, leaves and roots represent about 60 per cent. more in weight, and that their nitrogen content is greater in gross amount than that in the lint and seed, it would be expected that the total sulphur removed by the cotton plant may exceed 14 pounds per acre. We can already account for 7.2 pounds taken away in the lint and seed alone. That places it ahead of wheat in its sulphur requirements, and sulphur applied to wheat lands without adding nitrogenous or potassic fertilizers has more than doubled the output. What, then, may we expect from the use of sulphur as a fertilizer for cotton?

A certain amount of experience has already been obtained with the use of sulphur as a fertilizer in South Carolina, and this empirical knowledge should be immediately sought out and the results collated and studied for the good of the whole South. So far as I am aware, raw sulphur as a cotton-plant food has not

been investigated by the agricultural experiment stations, though it may prove that small tests have been made that have not yet been reported. Outside of the scientific circles some work has been done by individuals. I suspect that the observations made by Professor Rogers, quoted by Mr. Catlett in your issue of July 12, may have been rather widely known. I regret to say that, though a Virginian myself, they had not come to my attention until cited by Mr. Catlett. The knowledge that sulphur occurring in marl was "an efficient manure," stated by a prominent man, cannot fail to spread. Whether traceable to this mention by Professor Rogers or whether due to the accident of a similar application of sulphur-bearing marl in South Carolina, it is certain that Charles F. Panknin of Charleston, S. C., obtained a clear vision of the truth as far back as 1877; it was evidently an original discovery, for he sought and obtained U. S. Patent No. 193,890 for a method of fertilization consisting in mixing 95 parts of ground bone or ground mineral phosphate with 5 parts of pulverized raw sulphur. He had grasped a large part of the truth that has but recently been worked out in the laboratory and experimental farm by such men as F. C. Reimer (Oregon), C. B. Lipman (California), Jacob G. Lipman (New Jersey), C. M. Shedd (Kentucky), J. W. Ames (Ohio) and the great French investigators, E. Boulanger, L. Degruilly and A. Demolon, to whom are due the recent discoveries of the need of sulphur as a plant food. What Panknin understood 40 years ago and clearly stated in his patent application was the fact that sulphur undergoes oxidation in the soil and then combines with bases present to form sulphates; he comprehended the rôle of raw sulphur, thus made into sulphuric acid in the soil, in converting insoluble phosphate rock into the acid or soluble form. He apparently did not realize that sulphur was required by the plant as an essential constituent; he was chiefly interested in finding a cheap method of providing soluble phosphate. Incidentally, in doing this he made a great discovery, of which South Carolina may well be proud. Whether Panknin was anticipated in other parts of the world or not, he has left a document in this patent paper that testifies to a brilliant initiative in the use of raw sulphur in the soil, and to a remarkably clear conception of its behavior. Sulphur will remain unaltered almost indefinitely when exposed to the air; it indicates keenness of observation on Panknin's part to have ascertained that it would oxidize when incorporated into the soil when nothing was then known of the bacteria that are responsible for the reaction. It would be interesting to find out how widely Panknin's method was tried. It is significant of a lingering tradition in South Carolina that 29 years later (1906) William B. Chisholm of Charleston investigated the use of raw sulphur on soil in much the same way, and obtained Patent No. 824,280 for the process of grinding together raw sulphur and raw phosphate rock to an impalpable powder to make a fertilizer. Whereas Panknin used 5 per cent. of sulphur, Chisholm specified about 2 per cent. The reason why startling effects in plant growth were not obtained by these pioneers is that they did not take into account the large amount of sulphuric acid that would be consumed in the conversion of normal soil bases into sulphates, and consequently they did not use enough. The later experimenters employ from 300 to 400 pounds per acre, while C. B. Lipman and L. T. Sharp have used as much as three tons of sulphuric acid per acre, distributed from sprinkling carts, to convert the toxic carbonates and chlorides of alkali soils into sulphates, thereby obtaining huge crops immediately from land that before treatment was barren and incapable of supporting plant life. Efforts to collect information as to the results obtained by Panknin and Chisholm on cotton lands in South Carolina may be of great value at the present time. It is evident that no toxic effects could have been produced, because these experimenters mixed so much base with the sulphur that no increase in soil acidity could have taken place. The only injurious effects that have so far been noted when using sulphur have been due to accentuation of the acidity of the soil. It is essential that acidity be corrected in any case for nearly all staple crops. Very few thrive in acid soils.

Every cotton planter knows what happens to his crop when planted in sour bottom loams. He needs to apply a liberal dressing of lime, and if he be a wise man he will use ground limestone instead of burnt lime, except for a first dressing to correct quickly the excessive acidity; but that is another story.

The oxidation of sulphur produces sulphuric acid, and if a soil be already acid it means that there is no more free lime or soda or potash or iron with which it may combine. If, however, lime carbonate (limestone) be present, the sulphuric acid will produce lime sulphate and will liberate carbonic acid; or if the soil contain iron carbonate, the iron will be converted into iron sulphate with the elimination of carbonic acid. Hence a first requirement in the use of sulphur as a fertilizer is a neutral or alkaline soil with available excess of base. This excess of base is best assured by dressing a soil that is deficient in this respect with pulverized limestone or with marl. An average marl will be found to contain from 50 to 60 per cent. of lime (CaO), and the marls along the Atlantic and Gulf coasts generally contain 2 per cent. or more of phosphoric acid. An ordinary fertilization for cotton consists of potassium muriate, 30 pounds per acre; acid phosphate, 312 pounds, and Chile saltpeter (sodium nitrate), 125 pounds. The phosphoric acid in 312 pounds of the acid phosphate is roughly 50 pounds, while a long ton of marl would furnish the same amount. Of course, the prepared phosphate is soluble and ready for the plant, while the phosphate in the marl is not. The addition of sulphur at the rate of 300 to 400 pounds per acre will, however, render a considerable part of this phosphorus soluble in the first year of application, and perhaps as much may be available for the plant when produced slowly through the growing season in this way as in the case of the readily-soluble fertilizer which diffuses through the soil and reaches downward, thereby escaping to a considerable extent beyond the reach of the roots.

An interesting feature of the studies by O. M. Shedd of Kentucky, who has experimented particularly on the relation of sulphur to tobacco, is that cultivation has made a steady drain upon the sulphur content of the soils. Comparing the sulphur present in virgin soils with those in the same districts that have been under cultivation for 40 years or more, he finds losses ranging from 11 to 56 per cent. Sulphur is universally present in amounts ranging from 100 pounds to over 1200 pounds per acre. The consumption of sulphur is in striking relation to the period of cultivation and the use or non-use of fertilizers. One interesting case that well illustrates what Mr. Shedd discovered is that of a field in Henry county, Kentucky, that had been cultivated for 50 years without the application of any fertilizers. It still contained 280 pounds of sulphur and 740 pounds of phosphorus per acre. Virgin soil alongside contained 520 pounds of sulphur and 1000 pounds of phosphorus. In other words, 240 pounds of sulphur had been used up in 50 years, against 260 pounds of phosphorus. It must be observed, moreover, that sulphur is slowly accumulated in a soil, since the rains bring down about 7 pounds per acre per annum, on an average. This would at least make good any losses from drainage. Phosphorus, however, is derived exclusively from the minerals originally present in the soil. Since nature puts sulphur into the soil; since, in fact, no good soil is without several hundred pounds of this element per acre, and since continued cultivation exhausts the sulphur faster than it is brought down in the rains, it is certain that we will only be renewing normal conditions by putting sulphur back into the soil. The existence of bacteria ready to oxidize it so that it may combine with the bases in the form needed by plants as food shows that nature is ready to do her part if we will do ours. In the use of superphosphate we are, in fact, introducing into the soil from 80 to 100 pounds of sulphur for every ton of this material used, and Reimer ascertained that a great deal of the stimulating effect of superphosphate was due directly to the sulphur that it contained. It makes no difference whether we put the sulphates that plants need into the soil or put there substances that will make them as needed. We can do no harm by it, and we are sure to do good if we take pains to have enough available base in the soil to combine with the sulphuric acid as fast as it is made in the process of oxidation of the sulphur. Shedd's experiments have shown that from 68 to 80 per cent. of the raw sulphur added to soil is oxidized, regardless whether 100 pounds or 500

pounds per acre had been used, and that this amount of oxidation takes place within four months after treatment. He found that with sufficient base present to prevent stoppage of the bacterial action from acidity, 74 per cent. of the sulphur was oxidized in 112 days when the soil had been treated with 7000 pounds per acre. The result of providing ample resources of sulphuric acid is not only to form sulphates with free bases, such as lime and iron, but to decompose silicates, setting free soda, potash and magnesia chiefly, which newly-released bases remain as sulphates available for plant food. Moreover, the presence of salt, either in the small quantities universally distributed or from salt added as a soil dressing, leads to a reaction with the sulphuric acid forming sodium sulphate and free hydrochloric acid which latter, in conjunction with more sulphuric acid, becomes a more energetic agent in breaking down the silicates. If lime is present in excess, chloride of lime will be formed, and this substance is one of the important food requirements of the bacteria that fix nitrogen direct from the air. The stimulating effect of the sulphates and of phosphates rendered soluble by the action of sulphuric acid is part of the cause of the extraordinary growth and increased productivity of plants under the influence of sulphur when added in a raw state to the soil.

Another beneficial effect is due to the stimulus which the sulphates exert upon those nitro-organisms that either prepare organic nitrogen to serve again as plant food or which secrete it from the air. The most generally known of the bacteria that utilize nitrogen are those that produce "nitrification." These transform the nitrogen in protein into ammonia. The more important of these are *B. subtilis* and *B. streptothricus*, which are abundant in nearly all soils where excess of humic acid has not destroyed them. The substances yielding the protein for this action are straw and fodder and all vegetal refuse, among which must be included the cotton stalks, and also the cottonseed meal so widely used as a fertilizer. Without the action of the bacteria, however, it would merely tend to build up the acidity of the soil. The next step in nitrification is to oxidize this ammonia to nitrite and then to further oxidize the nitrite to the form of nitrate for plant food. These offices are performed by other groups of bacteria, the nitrosomonas and nitrosococcus doing the first and the nitrobacter the second part of the work. Here again the soil must be maintained on the safely alkaline side of neutral or the action will stop. That means to keep enough lime in the soil so that it may not become acid. Nature will then do the rest. Small amounts of common salt favor nitrification, as also do most of the sulphates, such as iron, sodium and potassium sulphates. Moreover, there must be original organic material present on which the nitrifying organisms may work. Every bit of straw, fodder, cotton stalks and leaves should be so utilized that it may be put back into the soil to maintain an abundance of humus. The action of the bacteria is more energetic also when the quantity of moisture in the soil does not exceed 18 per cent. nor fall below 10 per cent. Stable manure becomes almost without effect when the soil moisture falls below 5 per cent., and drops off equally when the moisture exceeds 20 per cent. Excessive moisture may be controlled by subdrainage; deficient moisture only by irrigation.

It is always a surprise to the Western farmer that the Easterner does not prepare to offset the danger of drought by utilizing his abundant opportunities for cheap irrigation. In the Southern Atlantic States it is possible to maintain at all times the most perfect conditions for growth, so that the crops may be under a degree of control that will insure a maximum output. It is a question of awakening the people of the South to an understanding of the economic possibilities in such a system so as to obtain that co-operation which irrigation necessitates. The South might have saved some billions of dollars at an expense of a few millions in the last 10 years by being prepared with irrigation works in those districts most often afflicted with droughts.

In utilizing the nitrifying bacteria we are not adding any new resources of nitrogen to the soil; we are merely working over and rendering available that which is present or which is put into the soil. There is another class of bacteria, however, that actually assimilate atmospheric nitrogen and adds to the gross amount of nitrogenous plant food. These are the azobacteria that grow in solutions of dextrose and other

organic compounds, and the azotobacteria which possess the power of fixing elementary nitrogen from the atmosphere in the soil. There are many species of the azotobacteria, a few of which are remarkable for the amount of nitrogen that they can fix. Charles E. Marshall of the Michigan Agricultural College points out that different investigators have estimated the quantity of nitrogen fixed by these organisms at from 15 to 40 pounds per acre per annum. A cotton crop of 300 pounds of lint per acre removes in lint, seed and total plant about 46 pounds of nitrogen per acre. Of this amount .72 pound is in the lint and 20.8 pounds is in the seed. Fortunately, the oil contains practically none, so that in using the cottonseed meal as a fertilizer and in so treating the plant residues as to return them to the soil the larger amount of the needed nitrogen is recoverable, and will be worked over and rendered available by the nitrifying bacteria if proper conditions of alkalinity and moisture are preserved. The azotobacteria, then, will build up the nitrogen in the soil if there be present the necessary mineral salts, free base (such as lime), abundant organic matter and suitable moisture conditions. The energy necessary for the nitrogen-fixing process is derived from the carbohydrates, organic acids and other organic nutrients that are furnished by vegetal matter in the soils, including the algae that develop abundantly in well-cultivated land with proper amounts of moisture. It must be insisted upon that the favorable action of the azotobacter in building up the nitrogen content of the soil can only be obtained by having an abundance of organic matter present, and by insuring a supply of iron, potassium and magnesium sulphates, calcium chloride and phosphates. This indicates the importance of magnesian limestones or marls, sufficient salt and an adequate source of sulphuric acid. The latter is not available in the quantity needed to favor this cycle of changes from the sulphur existing in combined form in the soil. The slowness with which soils recuperate in their supply of nitrogen is chiefly because of a lack of sufficient newly-generated sulphuric acid to provide all the mineral foods required for the rapid growth of the nitrogen-fixing bacteria.

The fundamental principle of successful cotton fertilization is to maintain a proper balance between the nitrogen, phosphoric acid and the potash. This is approximately 0.4 nitrogen to 0.4 potash ( $K_2O$ ) to 2 phosphoric acid. Next to these must be added an amount of sulphur equal to that of the phosphoric acid, plus abundant organic matter, sufficient moisture and a safe margin of protective alkalinity. Under proper conditions for promoting nitrification and nitrogen fixation as set forth in this paper the cotton planter should put back from his crop more than half of the nitrogen needed for the growth of the plant, and should, on soils that are not too dry nor too lean in humus and other organic matter, build up his nitrogen content in the soil out of the air by at least 15 pounds per acre. His nitrogen requirement being about 46 pounds per acre, he would thus have available about 38 pounds without adding Chile nitrate, dried blood or other nitrogenous substances. The amount of nitrogen lost from soils that need no draining is nearly compensated by the amount brought down in the rains. If care is observed to put back as large a portion of the nitrogen used in plant development as possible, and if conditions are provided for the growth of the nitrogen-fixing organisms, it is possible to maintain an approximate balance between the nitrogen thus added and the amount lost in the products sold. Furthermore, the use of sulphur, stimulating alike to the economic plant and to the useful bacteria in the soil, will unquestionably result in a greatly-increased output of cotton. If anyone fears to cut down the usual amount of nitrogen-bearing fertilizer for his next season's crop, let him add sulphur, and, where needed, lime containing a small amount of magnesia, and he will surprise himself with a bumper crop. From the results of tests already made in the use of sulphur it would seem reasonable to anticipate an increased output from suitable soils, as herein explained, of more than 50 per cent.

Huntington & Guerry of Greenville, S. C., have received contract for electrifying the two big cotton factories of the Pacolet Manufacturing Co. at Pacolet, S. C., and Gainesville, Ga. Electricity will be obtained from the transmission system of the Georgia Railway & Power Co., Atlanta.

## Sugar Production, Imports and Exports.

The receipts of sugar into the United States amounted to 7,472,728,906 pounds, valued at \$347,674,625, in the fiscal year ended June 30, 1917, against 7,620,085,008 pounds, valued at \$308,986,793, in 1916, the high-record year, and 6,822,825,102 pounds, valued at \$155,077,126, in 1914. While the quantity received in 1917 shows an increase of 9½ per cent. over 1914, the value increased 124 per cent.

Of the total arrivals of sugar in 1917, 5,332,745,854 pounds, valued at \$230,945,694, came from foreign countries; 1,162,605,056 pounds, valued at \$62,741,164, from Hawaii, and 977,377,996 pounds, valued at \$53,987,767, from Porto Rico. Of the 5½ billion pounds imported in 1917 from foreign countries, 4,669,097,398 pounds came from Cuba, 114,367,301 pounds from the Dominican Republic, 158,107,460 pounds from South American countries, 267,891,954 pounds from the Philippine Islands, 26,406,776 pounds from our recently purchased territory of the Virgin Islands, formerly Danish West Indies, 21,885,000 pounds from Japan, and lesser amounts from other countries.

The imports from the Virgin Islands and Japan show remarkable increases when compared with previous years. There were no imports of sugar from the Virgin Islands in 1916, and the total imports from these islands in the five fiscal years 1912-1916 amounted to 25,912,546 pounds, one-half million pounds less than the quantity for 1917. In 1916 the imports of sugar from Japan were 6410 pounds and only 26,410 pounds for the five years 1912-1916 against 21,885,000 pounds in 1917. The imports of sugar from the Dutch East Indies, which amounted to 314½ million pounds in 1912, fell to 21,813 pounds in 1917. The imports of beet sugar for 1917 were only 28,847 pounds.

The production of sugar in the United States for the fiscal year ended June 30, 1917, is estimated at 2,267,251,840 pounds, of which 621,799,360 pounds were cane and 1,645,452,480 pounds beet sugar. This production, with the imports from foreign countries and receipts from non-contiguous territories, would make the sugar available in the markets of the United States amount to 9,739,980,746 pounds. Of this amount, 1,248,840,336 pounds, valued at \$77,006,608, were exported as domestic refined sugar; 5,711,344 pounds, valued at \$284,875, were re-exports of sugar in the condition in which imported, and the shipments to non-contiguous territories amounted to 19,329,532 pounds, valued at \$1,439,741.

Deducting the shipments from the receipts and production would show 8,466,069,534 pounds as retained in the United States, an average of 81 pounds per capita, against 7,960,362,762 pounds, an average of 78 pounds per capita in 1916, and 8,793,794,928 pounds, an average of 89 pounds per capita, in 1914.

The average price of imported sugar in 1914 was 2.01 cents per pound; in 1915, 3.2 cents per pound; in 1916, 3.8 cents per pound, and in 1917, 4.5 cents per pound, an increase of 112 per cent. in three years. The average price of sugar from Hawaii was 3 cents in 1914 and 5.4 cents in 1917; from Porto Rico the average price was 3.1 cents in 1914 and 5.5 cents in 1917. Refined sugar exported averaged 3.6 cents per pound in 1914, against 6.2 cents in 1917.

## To Mine Georgia Pyrites.

Plans for developing 300 acres of pyrites land at Hiram, Ga., are being formulated by the Mammoth Mining Co., which has been organized with a capitalization of \$250,000. An equipment of machinery will be installed to include air compressors, drill, engine, boilers and concentrating mill.

This company's officers are: Emanuel Goodman, president; Wirt H. Miller, vice-president; D. M. Thomason, secretary and treasurer; Thomas Marcom, manager; all of Lynchburg, Va.

## Arkansas Manganese Development.

Manganese deposits in Arkansas will be developed by the Standard Manganese Co. of Batesville, which has been organized with a capitalization of \$100,000. The officers are: M. H. Cutter, president; Earl C. Casey, vice-president; W. E. Thurlo, secretary; J. P. Thomas, treasurer.

# Things to Remember

## REASONS FOR OUR COUNTRY BEING IN THE WAR.

By J. A. TAYLOR, Wilmington, N. C.

[The following statement so clearly represents the reasons for our being at war that we republish it from a pamphlet issued by Mr. Taylor.—Editor Manufacturers Record.]

That for years German higher criticism was directed to destroying all moral foundations, in philosophy, politics and religion, and that the conception of Germanic superiority was instilled in the people by propaganda carried on by the universities, the press and the pulpit.

That the conception of world dominion was for years promulgated by universities and public men generally, and the object planned to be attained through military power, commercial treaties and schemes of disaffection and revolt in friendly countries.

That this scheme embraced the Western Hemisphere, as is evidenced by the effort to colonize Brazil and the purpose to challenge the Monroe Doctrine.

That to this end the Christian religion was sought to be supplanted by the "religion of valor," in which might was to substitute right and military necessity the sanctity of treaties.

That this condition of the public mind had reached its climax in Germany in the summer of 1914, and that the military autocracy believed it had reached its acme of efficiency and was awaiting an opportunity to enter upon its scheme of world conquest.

That Austria sounded Germany before delivering her ultimatum to Serbia, and that a copy of the ultimatum was in the hands of the German foreign secretary 14 hours before its delivery.

That Germany was in accord with Austria in its demands on Serbia, and specifically agreed to support her as an ally.

That Great Britain, France and Italy proposed a European conference to hear and determine the dispute between Austria and Serbia, in which Russia was acquiescent.

That Germany refused to agree to the proposed conference, and offered nothing in lieu of the proposal in the way of composing the trouble.

That while Germany was demanding that Russia cease to mobilize her forces, the German mobilization was being feverishly carried out.

That on July 5, 1914, a conference of German military authorities planned war at an early date, and that the Serbian incident if not designedly brought about was instantly availed of.

That Germany sought to persuade Great Britain to give her a free hand with the pledge that she would not despoil France of any continental territory.

That as to the integrity of the French colonies, Germany replied to England that she could make no assurances.

That the German Chancellor frankly admitted that Germany violated Belgium neutrality as a strategic necessity, which fact the Kaiser confirmed in an autograph letter to President Wilson a few days later.

That a high German authority recently repudiated the claim that Germany invaded Belgium because she had reason to believe that France was planning to do so, and boasts of Germany strategy in deceiving France and causing her to mobilize towards the German frontier, while Germany proceeded to make her attack through Belgium.

That the dispatches between Berlin and Vienna have never been disclosed to the world.

That these facts clearly establish that Germany planned a world conquest and precipitated the European war in the belief that she was prepared to overrun the continent quickly, and that it is now conceded that but for the British intervention she would have forged the first link in her chain of world dominion.

That when the war broke out the United States promptly declared its neutrality, and that President Wilson by proclamation urged the spirit of this position both in mind and in act.

That apart from the general rules of international law pertaining to neutral commerce, the United States and Germany were under treaty to protect each other's commerce even in the event of war between them.

That Germany recognized her obligation under international law to pay for neutral cargoes by her admission of liability in the Frye case.

That unrestricted submarine warfare was not inaugu-

rated by Germany until she realized her inability to conquer Europe by land.

That at first Germany conducted her submarine warfare within the lines of the law, and that the unrestricted destruction of neutral cargoes and the murder of neutral people followed the failure of her effort to win the war by lawful means.

That her promise to President Wilson to conduct submarine warfare with regard for neutral rights and with humanity toward her enemies was a deliberate deception, and that her Chancellor only recently admitted that piratical methods were deferred only until Germany thought she was strong enough in submarines to carry out her purpose.

That the demands of the United States on Germany to observe the recognized rules of warfare and to respect the rights of neutrals was met by the insolent suggestion that our ships keep out of the war zone.

That while regret for the sinking of the Lusitania and the murder of American citizens was expressed by Germany, and regard for neutral rights promised, these dastardly deeds continued until more than 200 lives of non-combatant American citizens were lost in the most cruel and barbarous way.

That while the German Ambassador to this country continued to represent his Government at Washington, publicly professing the most friendly sentiments, he was the medium of an intrigue to induce Mexico to make war on this country with the suggestion that Texas, New Mexico and other American territory could be recovered, and which sought at the same time to involve us in war with Japan.

That a German propaganda has been persistently carried on in this country from the beginning of the war, and that up to this hour German spies infest the country, plotting the destruction of property and seeking by the most sinister means to arouse the spirit of sedition.

That President Wilson's patience endured almost to the point of the loss of national dignity, and that when Congress declared war on Germany it was the only course compatible with self-respect and national rights.

That in any event war with Germany was inevitable, and that by defending our rights now it was possible to fight the issue out in Europe rather than on American soil later.

That but for the armies and fleets of our Allies we would be fighting Germany today on American soil.

That Congress would have been recreant to its highest duty if it had not supported President Wilson in fighting this war on our terms rather than on Germany's.

That had the United States yielded to German insolence and abandoned its right to the high seas it would have meant bankruptcy to American industries and impoverishment of the people.

That when a country goes to war upon grave considerations internal opposition stops at the water's edge.

That there can be only two classes of citizens in this country—the loyal and the disloyal.

That there can be no divided allegiance, and that undivided support is due to the flag which protects property and guarantees liberty.

That when a country goes to war every citizen is conscripted into service, and that there is no differentiation of duty.

That the creed of pacifism, possibly praiseworthy in time of peace, becomes a crime if actively asserted when the country is at war.

That the more loyal the support of the people the more efficient the prosecution of the war, the shorter the duration of the struggle and the smaller the loss in both men and money.

That the men who remain at home are under equal obligation with those who go to the front to give their all if need be to the country's cause.

That the men who remain at home and do not in spirit and in act give unqualified support to their coun-

try are traitors to the men whose lives are offered for their defense.

That every man should vigilantly search out the disloyal, and through lawful means cause their suppression.

That every disloyal man should be publicly known, to the end that his name may be execrated.

## GOVERNOR CATTS WANTS A FULL-ARMED NATION.

### With Ammunition Plants in "Exact Center of Country."

#### America for Americans Is His Plea.

State of Florida,  
Executive Chamber.

Tallahassee, Fla., August 21.

Hon. S. Stanwood Menken, President,  
National Security League,  
New York City:

Dear Sir—I have your letter of recent date as president of the league, in which you ask me to write you what work I think the league should best do.

My idea is that we have made a great mistake in the past by not being prepared for military triumphs and warfare. The cry of peace when there was no peace has moved over this country, foiling and deluding the people until this terrible war with Germany has come about, which finds us wholly unprepared. As president of your great league I would urge:

First—That as far as practical we put our great munition plants and have them under the control of the United States Government in the exact centers of our country, ranging from north to south and east to west, so that in case a foreign enemy ever invades America he would have to proceed to the center of our land before he could reach these munition plants.

Second—I would urge that we never reduce our military strength any more to a peace footing, but that in order to be forever ready for struggles of worse import which now confront us, I would urge that we begin to build a system of complete fortifications at equal distances, especially along the borders of the American continent wherever our domain lies, and have these forts so impregnable and strong that a foreign enemy can never gain entrance into our borders. I would suggest further that we develop to the very highest a system of inland forts for the training of our forces to be forever kept within said fortifications and be prepared for any trouble that may come. It would not be amiss, while we are at perfect peace now, to build a line of strong and complete fortifications along the Mexican border and the Canadian border, and at the same time fortifying Alaska and the Philippine Islands, so that these far-removed provinces can be as well protected as those within our own borders.

I would further urge what Mr. Hobson urged several years ago, and for which he was severely ridiculed, that we spend enough money on our navy to make it the greatest on earth, and at the same time that we pay particular attention to the new arm of service, aviation work, and offer immense prizes for better lines of aerial voyage machines. I would also urge that we teach our soldiers the German idea of trench warfare, concerning which we are now ignorant, and which we must learn completely in order to cope with the latest methods in military affairs. I would urge, too, that the cry of America for Americans go throughout the length and breadth of this country, and as soon as peace is restored we close the gates as far as practical to an influx of these foreign populations which are a menace to our State and Nation.

I would also suggest that the women of our land and country be taught the rudiments of warfare, not that they may become amazonian in their ideas of life, but that they may have a proper and ideal conception of race preservation and becoming adepts in the use of arms and through the laws of heredity there will descend to their sons the art of true fighting and soldierly bearing for what a mother thinks a son generally does.

There are many other points that I could give you had I time this morning.

Yours very truly,

(Signed) SIDNEY J. CATTS,

Governor.

# News and Views from Our Readers

## Suggests That Uncle Sam Pay Russian Soldiers With Consent of Russian Government.

H. A. MCGUSTY, Enterprise, Miss.

A correspondent writing to the Memphis Commercial-Appel makes the extraordinary suggestion that if the Russian soldiers were paid more they would fight better. He even proposes that the United States should pay the Russian troops.

Of course, this suggestion seems absurd and visionary. There is no precedent for such a revolutionary proceeding. Taxpayers should keep their mouths shut and let politicians run these matters. There is, in fact, nothing to be said in favor of such a suggestion, except that it would win the war.

Germany is pouring money into the country to bribe the agents of disorder to plunge Russia into anarchy. America is loaning money to the Russian Government, and will probably have to loan a billion or two before the war is over. But Russia should win if the United States were, of course, with the consent of the Russian Government, to send a commissioner to each Russian regiment at the front, who could call the men together and address them something as follows:

"I am no orator. I will say not one word about patriotism or politics or the sacred rights of humanity, but to every man who does his duty and obeys his officers I will pay the sum of 50 cents a day in cash; furthermore, if you fight your way onto German soil, I will increase this bonus to \$1."

The Russian soldier is one of the best fighting machines in the world. For three years he has put up a good fight with practically nothing to fight with or for. A dollar would look big and round to him, for there is a lot of human nature about a Russian, and he would be over the border in a week, and God help the German who tried to get his dollar away from him by driving him back!

The total cost to this county, after all, would only be \$365,000,000—mere chicken feed these days.

## New Era in Marketing Cotton Brought About by Producer.

W. W. MORRISON, New Orleans, La.

It will take a great deal of money, as compared with other seasons, to finance cotton this year. Cotton merchants, spinners and bankers will have to exercise great care in carrying cotton, otherwise they will run the risk of putting an unwholesome strain upon cotton finances. Since it became a surplus crop it has mattered little to the producer what the price may be so far as carrying his cotton is concerned. He is about the only member of the cotton community who can carry the crop without subjecting the cotton business to dangerous embarrassments.

The producer carrying the crop is, therefore, in keeping with the soundest policy and should be urged. The fact is, the unusual level of prices and the dangers incident to it being carried by outside interest make it evident that he will have to carry the crop, whether he wills it or not. So we think it can be accepted as a definite feature of the coming season that the producer will take care of larger amounts of cotton and for longer periods than was ever before known in the history of cotton affairs.

The visible assets of the producer and the equipage he has steadily maintained throughout every trying ordeal of recent years warrants the conclusion that he is fully prepared, both mentally and financially, for this responsibility. The sustained consistency with which he has withdrawn his cotton from the market whenever it appeared that the supply was depressing the price stands out as a conspicuous feature of the market's history in late years and is a practical guarantee, we take it, that the crop of this season will be marketed in keeping with this record.

It will perhaps be illuminating to recite in this connection that the output of many manufacturing plants is at times greater than the demand. All well-managed plants offer at such times only such a part of their surplus as may be necessary to meet the demand. The price is thus steadily kept on a basis which reflects the

needs of the consumer as well as the cost of production. This is just what the cotton producer has been doing in late years, and it definitely defines the new era in marketing the cotton crop.

This basing of the price on the profits of the manufactured product as well as the cost of production does not mean that the new era involves a nullification of the laws of supply and demand, as some would interpret it to mean. Should the manufacturer or the producer put more of his surplus on the market than the demand called for, these immutable laws would certainly assess their penalties in the price that would be fixed. This price would reflect the necessities of the owners without regard to the cost of their products, just as it was reflected in the price of cotton, without regard to its cost, when grim necessity forced the farmer to market a year's supply in a few months.

A surplus of cotton does not mean today what it did when the crop had to be marketed under the adverse conditions of that unhappy period. The surplus was then, every bale of it, a depressing factor. This is not true of it now. It is true that it might have a psychological influence, but the cost of production and the profits of the manufacturer would go a long way, under the conditions of the new era, to neutralize such an influence. Especially would this be the case where these two items are so well known as they are today.

The cotton-producing interest, which includes the merchants and bankers of the South as well as the farmers, are responsive students of all these questions, and the views expressed here largely reflect their deductions. The records show that these deductions have not only influenced their attitude towards prices, but they show also that that attitude is today the most potential force of all others in directing the final course of prices. The records emphasize, too, the wisdom of recognizing this force, and equally emphasizes the folly of ignoring it.

## Steam Laundry Wanted at Orangeburg.

W. W. BARR, JR., Secretary of Orangeburg Chamber of Commerce and Agriculture, Orangeburg, S. C.

There is a good opening here for an up-to-date steam laundry, not only for local requirements, but to cover the southwestern part of the State, of which this is the geographical and logical center. The capital stock can easily be raised here.

We want detailed information relative to necessary machinery and equipment, etc. I am confident that with the proper management the proposition could be made to do a big and profitable business.

## Community Betterment Through Community Fairs.

FRED M. ALLEN, Executive Secretary Chamber of Commerce, Gastonia, N. C.

Gaston county, North Carolina, now claims to lead the United States, so far as any other county is concerned, in the promotion of the community fair. The movement has been fostered by the Gaston County Fair Association, assisted by the Gastonia Chamber of Commerce.

Good prizes are offered by the county fair association for the community fairs. Everything possible is done for months beforehand to promote interest in every community in its own one-day fair. Nothing is allowed to lag for a moment. J. M. Holland, general secretary of the big county fair, is the guiding spirit in the work.

This year 12 community fairs will be held under the auspices of the association. The first will be held on September 24, and the others will follow, one each day, except Sunday, until all are held. The Gastonia Chamber of Commerce will be represented by large delegations of business and professional men at each fair, thus encouraging the various communities in their efforts for betterment. Then on October 9, 10, 11, 12 and 13 the county fair is held in Gastonia, and the exhibits shown at the community fairs are all brought in and joined with the many other exhibits of the county's resources.

The community fair movement has already done much

in the county to encourage the residents of each section to do their utmost for the development of their respective communities along all lines.

## Alive to the Importance of Both Publications.

BERNARD J. ROEMER, Advertising Secretary Buy It Made in Texas Association, Dallas, Tex.

Referring to your letter of September 3, we are not entirely clear as to whether or not the Daily Bulletin will contain the editorial matter which makes the MANUFACTURERS RECORD one of the most valuable publications that comes to our desk. If not, we will ask that you continue our subscription to the MANUFACTURERS RECORD and also enter our subscription to the Daily Bulletin. We are very anxious to get the trade opportunities which are listed in the Bulletin at the earliest possible moment, but could not think for a moment of discontinuing the receiving of the splendid editorial matter which the weekly paper contains.

## Indispensable to Manufacturers.

C. C. LEEL, Secretary Manufacturers' Association of San Antonio, San Antonio, Tex.

We want to congratulate you upon the exceptional strength and directness of the reading matter contained in the MANUFACTURERS RECORD, which to our mind should be quite indispensable to every manufacturer and every manufacturers' organization throughout the United States.

## Finds It a Great Help.

S. G. RUBINOW, Assistant to Director, Agricultural Extension Service, Raleigh, N. C.

I am glad to say that I find your publication a great help to me in my work, and I enjoy reading your editorials and special articles.

## Brick-Making Opportunity at Mena, Ark.

PEN C. EASTIN, Secretary Mena Commercial Club, Mena, Ark.

Mena has a well-equipped brick plant that can be made a paying proposition by the addition of a small amount of new machinery, providing the proper party can be interested.

## Charlottesville Wants Live Secretary.

JOHN L. LIVERS, President Chamber of Commerce, Charlottesville, Va.

The Chamber of Commerce of this city is in need of a secretary. Charlottesville is a live city, with an excellent surrounding country, and we wish to have the services of a live young progressive man.

## Parting Admonition of a Father to His Soldier Son.

[George C. McIntosh, in Huntington (W. Va.) Herald-Dispatch.]

Well, boy, hit the line hard. Pierce the heart of German Kultur with the straightest shot that war has ever known. Teach the highwaymen of the seas that civilization can mold bullets as hard as those cast by savagery, and can fire them with superior skill. Let the plunderers of the world know that civilization writes the laws of nations and that massacre and brigandage are not protected by them. Put the guarding arms of humanity about the women and children and save them from the merciless attacks of butchers and spoilers. Seal to Government the faith that nations put into their treaties. Spoil for all time the devices of German treachery and arrogance. Plant the banner of Freedom where all the world can see it and Time cannot remove it. Come back, at the end, prepared to assist in the problems of readjustment that are to follow.

Good luck!

Good-bye.

# Industrial France as an Object Lesson to America

PREPARING TO ENTER WORLD MARKETS WITH DYES, CHEMICAL AND PHARMACEUTICAL PRODUCTS AFTER THE WAR IS OVER.

How France, while fighting for her political independence, is preparing to be economically independent of Germany after the war for dyes, chemicals, pharmaceutical products, and even machine tools, and to enter the dye and chemical industry on the scale of international competition and place "Made in France" products in foreign markets, is related in a communication just received by the Philadelphia Bourse from the Chamber of Commerce of Paris.

Already, according to the statement from the French commerce body, many products in which Germany before the war enjoyed a monopoly in French markets have not only been substituted, but have been improved upon and will be sold "at prices that will astonish neutral purchasers." Munition plants are being made ready to turn out dyes and chemicals immediately upon the conclusion of the war, while an \$8,000,000 corporation has just been formed to take over a number of plants from the Government and transform them into coloring matter manufactories.

The statement to the Philadelphia Bourse follows:

"During the first two years of the war considerable efforts were made to free France of German imports and to substitute French products for all those of German manufacture. These attempts at emancipation were at first the work of private enterprise. The Association nationale d'Expansion économique was founded on December 14, 1915, under the patronage of the Paris Chamber of Commerce, and with the help of the principal chambers of commerce in France, along with the close co-operation of the principal economic associations, it began by making inquiry into German competition. It brought into contact manufacturers, agriculturists and tradesmen, so proving to each and all that their own private interests were undoubtedly bound up one in another and could only be promoted by a thorough understanding between the representatives of all three branches of our national industry.

The Societe d'Encouragement pour l'industrie nationale, founded in 1801, organized two exhibitions of French products as substitutes for foreign articles, one in June, 1916, and the other in June, 1917. In this year's exposition more than 100 firms were represented, each under the management of eminent engineers and chemists.

"As an example of what is being done, we may say, for instance, that the famous medical thermometer everywhere looked upon as a German specialty is now being made by a French firm, and with many improvements, and it is sold at a price that will astonish neutral purchasers.

"It is the same with a certain chemical product, 500 tons of which the Germans poured into France every year, but a French society states that it is now ready to send it out in quantities ten times as great. The same with pencils, X-ray screens and tubes, filters for laboratories, ebonite, salts of thorium, quartz goods, formol, cerium, ferro-cerium, magnetos and those machine tools one could never find unless stamped 'Made in Germany.'

"All these products and articles are now manufactured in France by French workmen. The creation of these new industries has been achieved by surmounting obstacles of all kinds—a scarcity of hands, difficulties of transport, of supplies, etc., as well as procuring raw materials, formulas, and having so often to construct entirely new machinery. Moreover, prices are so fixed that notwithstanding the rises due to the war, they can compete advantageously on any market in the world.

"The French manufacture of pharmaceutical products and matter for dyeing and coloring purposes has also largely benefited by the spread of munition factories. Large works have been built in the suburbs of Paris and in the neighborhood of Lyons, St. Etienne, Roanne and Annonay for the preparation of acids, tar products, gunpowder and explosives required to carry on the war. These factories will be easily transformed during peace time into works for chemical and pharmaceutical products. The same engineers and workmen who are now manufacturing smokeless powder and

melinite will be able on these premises and with the same machinery to produce imitation silks, nitrobenzine or aniline. Many large influential societies have been organized with a view to extending national production on these lines. The Office des produits chimiques et pharmaceutiques, formed in 1914, by dividing out between the different firms the existing stocks of raw materials and the products left at the disposal of manufacturers by the War Office and the military authorities, and by obtaining the demobilization of indispensable chemists, has permitted the reopening of many factories that had to be closed or whose output had been vastly decreased since the beginning of the war. This association has provided for the manufacture of phenol and tars, and while helping with the making of phenol for synthesis found also a means to increase the output of picric acid, trinitrophenol, etc.

"The Syndicat des matieres colorantes was formed during the summer of 1915, and includes the principal societies and notable Frenchmen concerned in chemical manufactures, mining, metallurgy, coke furnaces, gases and carbonization, dyeing materials and leather, organic chemical manufactures, lackers, colors and printing inks, woolen, cotton and silk materials, paper mills, etc. Engineers, professors and chemists are associated with these leading manufacturers.

"The Compagnie Nationale de matieres colorantes et de produits chimiques, with a capital of 40,000,000 francs (\$8,000,000), has undertaken as its main object to supply French home-made products in the place of those sent into the country by Germany before the war. This society has signed a contract with the Government with the view to utilizing factories for explosives which have been built for the requirements of the war. On the conclusion of peace this Compagnie Nationale will be given possession by the State of a certain number of munition plants which have been erected for the manufacture of explosives. The society, on the other hand, is bound to assure the production of coloring matter and dyes and to pay over to the Government the share of profits stipulated in the contract.

"This kind of intervention on the part of the State constitutes a very important precedent with regard to the economic development of the country. It is a sign of the mutual and increasing association of public administrative activity and industrial societies. In this way French arts and manufactures can hold in the different markets of the world the place to which they are fully and justly entitled."

According to a statement by L. R. Duffield, superintendent of the machinery exhibition department of the Philadelphia Bourse, France is already buying or attempting to buy millions of dollars' worth of steel and machinery for making machinery in this country, and orders are going begging for inability of American manufacturers to fill them at once. During the past 30 days the Bourse machinery exhibition department, which has exhibitors of machinery and machine tool manufacturers from all parts of the United States as far West as Minneapolis, has received inquiries for more than \$1,000,000 worth of steel and machinery, half of which have come from France. The balance are made primarily by South American, Swedish and Norwegian firms. Were American manufacturers able to immediately supply these foreign demands, the statement asserts, many more inquiries would be received.

The feverish desire of France to become industrially independent and to place "Made in France" products in international competition, Mr. Duffield says, is duplicated to a possibly less extent in Scandinavia and South America. He points out that the South American inquiries received at the Bourse in the past month were for textile, automobile manufacturing and power plant machinery to the value of \$150,000, while inquiries from Norway and Sweden to the potential value of \$300,000 were of a somewhat similar kind.

"France is bending every effort not only to become a great dye and chemical and pharmaceutical manufacturing and exporting nation after the war," Mr. Duffield continues, "but also to compete with us in ma-

chinery and machine tools. A large part of her war-industrial organization can be transformed after peace is declared for this purpose, and she is now buying or attempting to buy steel and machinery for making machinery in this country, and it is impossible for our manufacturers to supply all the demands. In Philadelphia recently an order from France for machinery for the manufacture of barbed wire to the value of \$800,000 had to be turned down, and there are many other instances of larger orders going begging.

"We must take out hats off to France. While fighting for her political independence and security against Germany, she is mobilizing and equipping her industrial forces to insure not only economic independence, but a position in world markets scarcely less powerful than that of Germany three years ago."

## GREAT ACTIVITY IN KENTUCKY OIL FIELDS.

Weekly Production Now Around 75,000 Barrels—New Developments Extend Over 48 Counties.

Barbourville, Ky., September 10.—[Special.]—Production of petroleum in Kentucky is now averaging around 75,000 barrels weekly. At a selling price of \$2.40 per barrel, the highest on record for Kentucky petroleum, the monthly revenue of operators and landowners approximates close to three-quarters of a million dollars. This sum and more is going out in new developments, which now extend to 48 counties.

To handle the great gain in Kentucky production this year the Cumberland Pipe Line Co. has made several new extensions into recently-proven fields, and to still further keep up with the increased output the pipe line company has increased its capital stock from \$1,000,000 to \$1,500,000 to provide funds for further improvements.

In addition to the runs handled by the Cumberland Pipe Line Co., which pipes Kentucky petroleum direct to Parkersburg, W. Va., a number of tank-car lines extend into districts apart from pipe-line facilities. In this way an output of several thousand barrels is made each week above the pipe-line figures. Last week the Barnett Oil & Gas Co., which owns a developed acreage in the Estill county field, alone shipped 5000 barrels in tank cars, the production going to the company's Chicago refinery. In the Allen county fields, where there is no pipe line connection, several thousand barrels are shipped in tank cars each week to a refining plant at Nashville, Tenn.

Kentucky is now probably the most active field east of the Mississippi. The August record of wells drilled and new daily production developed exceeds that of any of the high-grade fields of the country. During the month there was a total of 166 wells drilled, having an average daily yield of 18 barrels.

Developments are now at the most active stage in the history of the Kentucky fields, handicapped only by a scarcity of drilling material. This week there are over 250 rigs up and wells drilling. Were material available there would be twice this amount of new work under way. Operators from the Western fields are coming to this State in increasing numbers, attracted by the vast acreage of drillable territory and the shallowness of the sands. Material which would be taken up by one well in Kansas, Oklahoma or other deep-sand fields is sufficient to furnish half a dozen Kentucky wells, and this factor of expense is considered seriously by the trade at this time, when drilling material is hard to obtain at any price.

On the Tennessee side a developed pool of considerable extent has been proven in Scott county, in the vicinity of Glen Mary. A number of wells were drilled last month, producing from 10 to 75 barrels each.

## Wants Foundry and Machine Equipment.

GERMAN RIBON C., 60 Santander Street, Barranquilla, Colombia.

I am running a machine shop, foundry and iron and copper works, and I feel forced to re-equip my factories without delay. Let me know how much it would cost to put in an entirely new outfit—machinery, furnaces, retorts, installations for boiler-making, etc. In what time could such industrial product be delivered?

# The Meaning of the Struggle to Save the World from the Menace of German "Kultur"

By CHAS. E. CHIDSEY, Pascagoula, Miss.

I am glad to see that the MANUFACTURERS RECORD has printed President Wilson's reply to his Holiness Pope Benedict, and has given especial emphasis to the words: "We cannot take the word of the present rulers of Germany as a guarantee of anything that is to endure, unless explicitly supported by such conclusive evidence of the will and purpose of the German people themselves as other peoples of the world would be justified in accepting. Without such guarantees treaties of settlement, agreements for disarmaments, covenants to set up arbitration in the place of force, territorial adjustments, reconstitutions of small nations, if made with the German Government, no man, no nation could now depend on."

This is the crux of the whole matter, for he indeed must be mentally blind that cannot see that there cannot be any lasting peace until the German people themselves have been made free. Germany is now, and has been ever since 1870, in the coils of a boa constrictor that is slowly but surely crushing out its spirit of independence and making of the people a vast military machine, whose avowed purpose is the conquest and enslavement of the world.

Herbert Spencer, writing in 1896, summarizes the condition of Germany as then seen by him: "Germany, already before 1870 having a highly-organized military system, has since been extending and improving it. All physically fit men between certain ages are soldiers either in preparation, in actual service or in reserve, and this ownership of subjects by the State extends even to those who have gone abroad. For the support of its vast armaments those engaged in civil life are more and more taxed; which means that to the extent of those parts of their earnings taken by the State, they are owned by the State; their powers being used for its purpose and not for their own. And an approach to an entirely militant type of structure is shown in the growing autocratic power of the soldier emperor, who is swayed by the absolutely pagan thought of responsibility to ancestors in heaven. Furthermore, the German citizen does not fully own himself while carrying on this civil life, outdoor and indoor. \* \* \* Says Mr. Eubole Evans, in a recent account of the changes that have taken place in German life since 1870: 'There is little possibility of independence of speech or action. The police are always at your elbow. \* \* \* Half schoolmaster, half nurse, he (the policeman) will supervise your every action, from the cradle to the grave, with a military sternness and inflexibility which robs you of all independence and reduces you to the level of a mere plastic item. \* \* \* If you wish to stay in Germany you must give up your individuality, as you do your passport, into the keeping of the police authorities.'

"And now note that this is the testimony not of an outsider only, but that of a German who, perhaps above all others, is the most competent judge. Prince Bismarck in 1893 said to a deputation from the principality of Lippe: 'My fear and anxiety for the future is that the national consciousness may be stifled in the coils of the boa constrictor of the bureaucracy, which has made rapid progress during the last few years.' \* \* \* The stifling of the national consciousness, feared by Prince Bismarck, is commented on by Mr. Evans, who, referring to the feeling of Germans about bureaucratic control, says: 'Long use has made it second nature to them; they can hardly imagine any other regime.'"

The thought that the nations of the world must free Germany and thereby assure their own safety is no new one, for it was first uttered in an unsigned article in the Edinburgh Review for July, 1879. After relating how the crown and nobles of Germany aroused the masses to resist and overthrow the power of the First Napoleon by the promise of a free Constitution, he continues:

"It was a fair illustration of the old proverb of his Satanic Majesty when he was sick and after he was well. Not only was it the deliverance of the land from the yoke of France that led the German people to give their blood and hard spared treasure, but the promise of deliverance from the voice of their own sovereign in

the shape of a constitutional freedom and liberty of the press. If the war of liberation be one of the most noble and touching episodes that history records, the treachery of the princes that ensued is one of the most disgraceful. There is no part of the late Prince Consort's mind more to be admired, and in a German prince to be wondered at, than the courage and openness with which in letters in the last volume of his life he reminded the present Emperor of Germany, first as regent and then as King, of the promises made by his line to their people, and never fulfilled. The princes could resume their thrones, all braced and strengthened as those thrones had been by the sacrifices of the people, but the people had no liberties to fall back upon, and less power than ever to obtain them. There appears to be that radical lack of sound political knowledge in the minds of despots and semi-despots which leads them invariably to seek to repress the symptoms of a disease, instead of removing the cause for it. Thus the popular discontent excited by their bad faith became their pretext for further injustice. The very action also of a great army in the time of war, composed of such social elements as Germany furnishes, entails a forced and inevitable return to something like feudal tyranny and vassal subjection, the effects of which are slow to disappear. The maintenance of a huge standing force, besides the burden to the country, and the diversion of its people from peaceful and independent pursuits, contributes the more to raise the pretensions of an overgrown caste, which acknowledges military service, with the exception of diplomacy at court places, the only occupation befitting their dignity, and where in certain regiments (no non-noble, as before the Revolution in France) can obtain a commission."

Thus we see that the German Empire was founded upon chicanery and fraud and its purpose to make of the German people a nation of voluntary slaves whose master shall be the head of the military caste, and to accomplish this purpose the master minds at the head of the Prussian military caste made use of the most powerful instrument known to man for warping the minds and souls of men—education, for the people of Germany have been educated into serfdom, and it is a serfdom that enslaves not only the man's body, but his mind. The Protestant religion in Germany has been supposed to give men freedom of thought and speech, but the wily master of the German people has used this very religion as a means of enslaving them.

"Altogether, the decline and fall of the Protestant Church in Germany," continues our authority, "is a subject well worth the investigation of minds which seek to unravel the causes that underlie the phenomena of history. One reason lies on the surface, viz., that a legislature which ignores the mixed nature of the human mind can only end by losing all hold upon it. \* \* \* They have rigorously prescribed to their subjects a form of worship, but have left them free to exercise any amount of license of thought. Their whole aim has been to establish the same system of drill and subservience in the externals of the church as in those of the army and the bureaucracy, with this difference, that in those two departments they exact conformity as well as uniformity, but in that of the church, if a man be not disposed to take religion in their way, he has the alternative of leaving it altogether. The Bible in the knapsack of every soldier, which strikes some as so paternal a regulation, comes under the category of military discipline. It is a proof of a soldier subordination to his rulers, not of their solicitude for his religion, for army chaplains are free to preach against the most sacred tenets of the Christian faith, so long as they preach obedience to military superiors. \* \* \* We have said that his late Prussian Majesty concocted a church in which all standards of belief were omitted. \* \* \* Accordingly, the act of union set up no confession of faith for people to quarrel about, but simply asserted 'God's Word' to be its foundation. The royal theologian forgot that, under his and his predecessor's persecutions and tamperings, that very Word has been so undermined and unsettled in Protestant Germany that few believe it at all, and they are not agreed.

"We have thus endeavored to trace an outline of

some of these successive agencies by which the decline and fall of German Protestantism has been gradually brought about, and which have landed it at length on the lowest step of all—a church without a creed, and a people without a belief. \* \* \* The peace of Augsburg in 1555 virtually undid on one hand what it professed to do with the other. It granted legal recognition of the Protestant state, but also legal authority to them to compel their subjects to be of the same religion as themselves. 'Cujus regio, ejus religio.' They thus inaugurated a system of greater tyranny even than that of Rome, and which has ended in a greater deadness of practice and belief. It cannot be said, in Milton's words, 'the hungry sheep look up, and are not fed,' for the very hunger for spiritual food is starved out. Not even superstition survives."

Thus it is that in Germany, religion, the most sacred possession of man, has not only been stamped out, but made the instrument of debasing him and of making him the voluntary slave of a military caste to which obedience to superiors is the highest virtue. The slavery that is Germany's will be the slavery that all other nations and America must endure if Germany is permitted to win this war. Even after the German military machine is overthrown upon the field of battle the war cannot and must not end there, but must go on until the German people are liberated from their thralldom, and this must be done lest the deadly virus of their militarism and medievalism be disseminated and infect the nations of the earth. The nations of the earth must see to it that Germany is no longer the breeding place for germs of "kultur."

The press of Germany during the last few days has been complaining that President Wilson wishes to interfere in the internal affairs of Germany, and while that is true, let it not be forgotten that the Government of Germany and its people have made that interference a necessity to the restoring of peace. Under ordinary circumstances I have no right to inquire into or interfere with my neighbor's domestic affairs, but when he deliberately educates his children for pirates in order that they may prey upon me and others, then I have a right to interfere and demand of the State that the public be saved from such a menace. A government that deliberately enslaves its people, body and soul, is not a government with which free nations can safely enter into treaties, and a people that cheerfully accepts such slavery is not a people that the nations can look to for placing a check upon their government; for under no circumstances can the Government be any better than its people. And so it is that this war is a war for the liberation of Germany, for there must be a free Germany before there can be any assurance of a lasting peace.

"So much has been said and sung, written and ranted about Liberty—so many crimes committed, so many abuses defended in her name," continues the Edinburgh Review, "that it needs some of the courage she imparts to venture a word on a subject so sacred and so stale. There are but two supreme sources of good for the needs of suffering and sinful man, and neither can flourish purely without the other. Both have their kindred difficulties and struggles and their fallible signs. Both require faith and sacrifice, devoted priest and stainless altars, and each can boast a noble and always replenished army of martyrs. The flame in both is kindled by sore friction and tribulation; but once lighted in hearts, as in States, its infallible test is to permeate all things with its ineffable virtue. It is especially the characteristic of liberty to be so adjusted and appointed for the development of the human mind that like the air we breathe, we know not how it surrounds us till it be vitiated and withdrawn; so that the highest proof of its perfect action consists in its failing to remind us of its existence. It has, so to say, to precede and teach itself. For men and nations must be free before they can know how to prize or even use their freedom. The despot's stock pretext is that his people are not fit for liberty. The only answer is that without liberty they never will be. Thus the first stage of its life, and the second, of its development, are all-critical, for it needs what, in feudal lands, is rare, a believer in freedom to found it, and what after long subservience is as rare in turn, a people fit to wield it. Despotism is twice cursed—in the slavery it imposes and in its far worse progeny, the slavishness it engenders. Where this debased condition of a people has obtained, liberty is difficult to set in action; for it has as much to undo as to do.

"It is this fatal effect of foregone causes that ac-

counts for the political and social riddles presented at the present day by so great and gifted a race as the Germans, which explains the almost oriental impassibility of a caste, barbarous, merciless and powerful in old times, powerless, insignificant, but no less arrogant and obstructive even now. It is this which still maintains the deep and open divisions in the bosom of the Fatherland, the animosity between class and class, the cowardly customs, the rude manners, the low estimation of the female sex, and all that reminds the Englishman that he is not in a land of freedom. And it is especially this which has frustrated and nullified the true object of the great movement of the Protestant Reformation in Germany."

This was written and published in 1879, and it is true of the Germany of today as it was of the Germany of that time, and the last sentence of this remarkable essay is prophetic in its words, and yet withal sounds like the blast of a trumpet calling the nations to arms.

"May some of our readers live to hail the time, under a different reign, when this falsely so-called 'fight for culture' may be exchanged for another and nobler war for German liberation."

Thirty-five years have passed since first I read those words, and yet I have lived to hail the time when nations of the world are arrayed in battle to save the world from the menace of German "kultur" and withal "a war for German liberation."

### Checks Put Upon the Negro Exodus.

New Orleans, La., September 10—[Special.]—Statistics compiled by New Orleans railroads show that the negro exodus to the North has been materially curtailed as a result of the recent action of the carriers in abolishing prepaid orders—telegraphic orders for passenger transportation between two points—and the labor employment shark of the North has been practically eliminated.

Although the elimination of the prepaid order was decided on by the railroads about 60 days ago, it has not become generally public until now. Because the Interstate Commerce Commission allows no discrimination, this agreement of the railroads has resulted in some instances in slight inconvenience. For instance, if a man's wife were in Chicago, he could not wire her a ticket, nor could he even send the ticket agent at Chicago a certified check to pay for the transportation. Instead, he would have to send the money direct to her, and she would have to purchase her own ticket.

The railroads east of the Mississippi, south of the

Potomac and south of the Ohio decided that doing away with the prepaid order would cut down the negro exodus because Northern employment agents would not trust the transportation money to the individual negroes.

The employment agents of the North endeavored to get around the bar the railroads had set up by wiring transportation money over commercial telegraph lines to the individual ticket agents. This resulted in the railroads issuing circulars announcing that the agents would not honor these orders nor accept certified checks accompanying orders.

The chairman of the Southwestern Passenger Association stepped in about three weeks ago and requested the commercial telegraph companies not to accept money for ticket orders. This request has been granted.

Railroads as far as possible have also discouraged the exodus by failing to find additional equipment when large parties of negroes were to be transported.

The Georgia Legislature has passed laws prohibiting labor agents from removing any class of labor from the State.

### Louisiana Lands Offered Free for Grazing Purposes.

New Orleans, La., September 10—[Special.]—That Louisiana will shortly be made the grazing ground for tens of thousands of Western and Northern cattle is indicated as a result of a conference held last Saturday in Washington between W. H. Sullivan, general manager of the Great Southern Lumber Co. of Bogalusa, La., and the United States Department of Agriculture.

Colonel Sullivan, accompanied by Representative Sanders, tendered the use of 50,000 acres gratis to the Department of Agriculture. The lands are all owned by the Great Southern Company, and it is hoped that out of their utilization in this manner will develop a general movement of cattle from the drouth districts of the West and the cold areas of the North to this section.

It is believed that the first cattle to be brought to Louisiana will come from Texas. The drouth in a considerable portion of that State has been so prolonged that it will be necessary to sell the herds for slaughter unless pasturage can be found for them. Colonel Sullivan stated that 100,000 cattle could be sustained throughout the winter on the 50,000 acres that his company is offering. With the coming of spring the number of cattle could be doubled, he declared.

The Department of Agriculture, it is declared, has long been of the opinion that Louisiana should be one of the great cattle-raising States of the Union. The fact that it produces luxuriant grasses the year round

and because its climate is sufficiently mild to make it unnecessary in a large measure to protect cattle from the cold are great advantages enjoyed by few other localities. In the past the prevalence of the cattle tick in Louisiana has militated against the cattle industry, but now, as the State is being rapidly cleared of ticks, this objection no longer holds. In fact, several parishes, including those in which the Great Southern's tract is situated, will be freed from the quarantine restriction November 14. That area is now free of ticks, and only awaits the formal inspection before being declared tick free.

### Completely Connected Up.

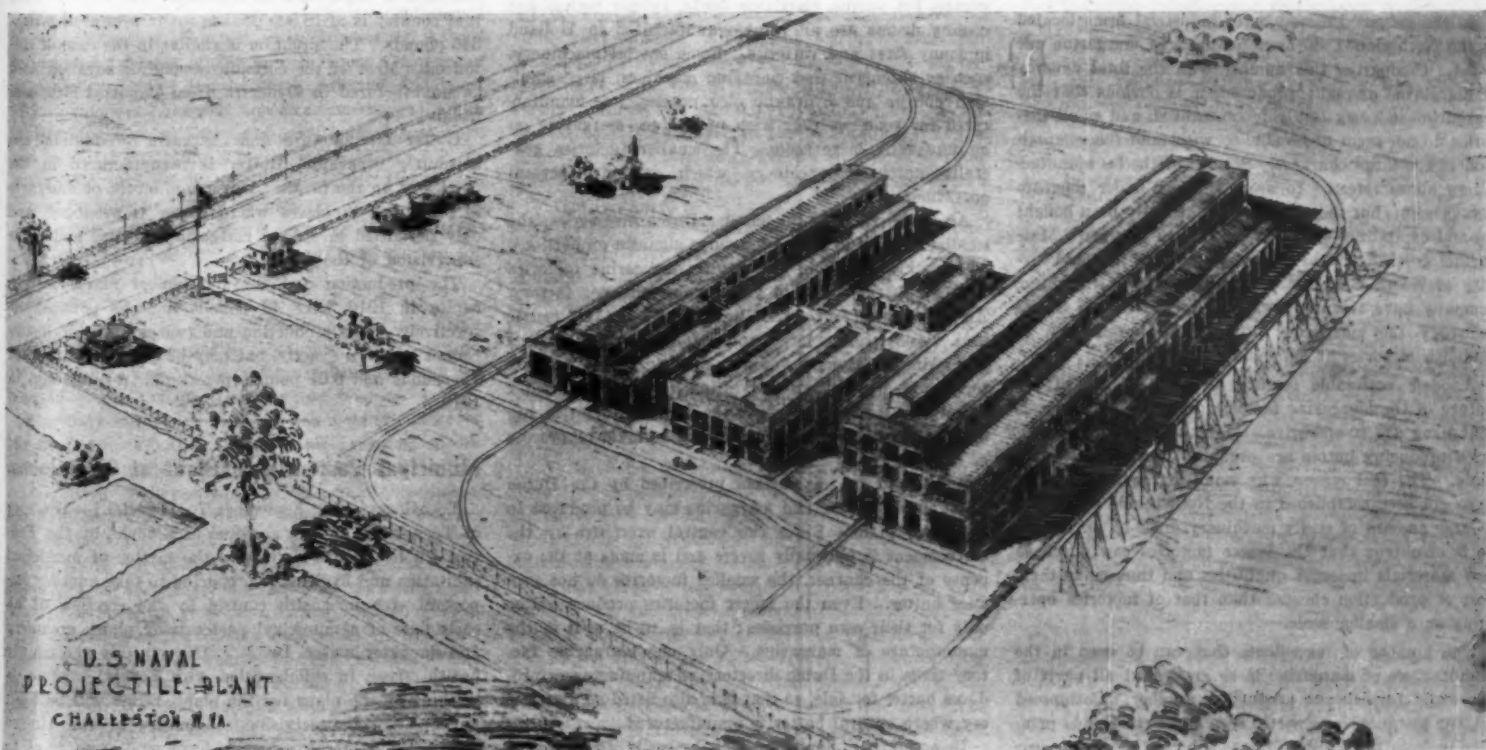
Completion of the new army cantonments, aviation fields, naval bases and other Government war projects will find them linked in a network of telegraph and telephone lines, which will make possible instantaneous communication both with the department authorities at Washington and among themselves. Hundreds of miles of pole line have been and are still being built to assist in the mobilization of the nation, and both trained men and material are being added daily to the many branches of the Government requiring increased communication facilities. Washington is the nerve center of a constantly growing system of wires radiating in every direction to the scenes of the national activities.

The work of the telegraph and telephone companies in improving Government communication has been directed chiefly through the Committee on Telegraph and Telephones of the Council of National Defense, of which Mr. Theodore N. Vail is chairman, and which acts under the general supervision of Mr. Daniel Willard, chairman of the Committee on Transportation and Communication.

### Corpus Christi May Municipally Provide Gas Supply.

Corpus Christi, Tex., September 7—[Special.]—Because private interests have failed so far to bring natural gas into Corpus Christi from the White Point field, which is but eight miles away, Mayor Roy Miller and other members of the City Council of Corpus Christi now have under consideration a plan to lease or purchase land in the proven gas field at White Point; to sink one or more wells by contract and to then pipe the natural gas to Corpus Christi and sell direct to the consumer under the municipal ownership of a local distributing company.

### GENERAL VIEW OF U. S. NAVAL PROJECTILE PLANT, CHARLESTON, WEST VIRGINIA.



U. S. NAVAL  
PROJECTILE PLANT  
CHARLESTON, W. VA.

Work was recently started on the big Government armor-plate plant and projectile factory to be erected at Charleston, W. Va. These two plants will cost approximately \$15,000,000 and will employ over 1700 men. Work on the projectile plant will be rapidly pushed, and it is expected will be in operation by next April. The armor-plate plant will be ready for operation in about eighteen or twenty months.

## MANUFACTURE OF MARGARINE IN THE NETHERLANDS.

### Demonstration of Possibilities for Similar Great Industry in This Country if Restrictive Laws Were Repealed.

[From report of United States Consul-General Soren Listoe, Rotterdam.]

Official statistics showing the amount of margarine produced in the Netherlands have not been published in recent years. Exact figures showing the quantities of animal and vegetable oils, fats and seeds could be obtained, but an estimate based upon such data would not be accurate, because it is impossible to estimate the amount of natural butter used in the manufacture of the margarine. The 1916 yearbook of the Chamber of Commerce at Rotterdam states upon good authority that 30,000 metric tons of margarine (animal and vegetable) are consumed in Holland annually, and that in 1916 the proportion of margarine exported to that consumed locally was in the ratio of five to one. Taking the figures given above as a basis, it may be estimated that there were about 180,000 metric tons of margarine produced in the Netherlands during 1916. The same authority shows that the exports of margarine, most of which go to England, have increased steadily since 1914, notwithstanding the difficulties that have been encountered during the war in securing raw materials. It is of interest to note in this connection that the imports of butter into Holland from nearby countries have decreased since 1914, and in 1916 were only about one-half as large as they were before the war.

Practically all vegetable oils and animal fats can be used in the manufacture of margarine. So long as the legal requirements are complied with, great freedom is given to manufacturers. Churners frequently change their formulas according to market prices, seasons of the year, and the quantities of raw materials available. Deodorizing machinery has been developed in Germany and Holland to an extraordinary degree, so that many oils and fats which are not used elsewhere can be introduced without injuring the quality of the finished product. The principal vegetable oils used in the manufacture of margarine are those derived from cottonseed, peanuts, sesame, soya beans, palm kernels, rapeseed, linseed, kapok seed and coconuts. The following are among the animal fats generally used in the manufacture of margarine: Oleo oil, oleo stock, tallow, neutral lard, imitation neutral lard, butter and milk. Salt water is always mixed with the various ingredients. Only one or two Dutch factories use vegetable oils entirely, or to the full extent allowed by law. The margarine produced from vegetable oils is known on the Dutch market as "plantenboter."

In the classified directions of industrial firms located in the Netherlands, 30 manufacturers of margarine are listed. Comparing this number with the total amount of margarine annually produced, it is obvious that the margarine industry is highly centralized, and small factories do not seem to be able to withstand the competition of the large churners. Several of the 30 manufacturers above referred to are nominally under separate management, but their plants have recently been bought up and capitalized by one large concern (Jurgen's Margarinefabriek, Oss), with headquarters in the Province of North Brabant. Representatives of this large company have recently been sent to the United States to study the margarine situation and eventually to establish factories at desirable points.

Another noticeable feature in connection with the nature of the margarine factories in the Netherlands is that none are co-operative. Many of the large creameries producing butter are organized on a co-operative basis. The real reason why small margarine factories have not been established in the Netherlands is because a large amount of costly machinery must be purchased. It is also true that the larger factories can purchase raw materials in larger quantities and thus make their cost of production cheaper than that of factories operating on a smaller scale.

The number of ingredients that can be used in the manufacture of margarine is so great that all parts of the world furnish one product or another. Cottonseed oil, for instance, is imported into the Netherlands principally from the United States. Shortly before the war English oil from Egyptian cottonseed became a rather close competitor. The animal fats required by margarine

factories come principally from the La Plata Valley in South America. The United States and Australia also send some animal fats to Dutch ports. During the war imports from Australia have ceased, because of the export embargo which has been placed upon such goods. Japan, China, India and certain parts of Africa supply the greater part of the oil-bearing seeds, with the exception of cottonseed and linseed. Exact figures relative to Holland's foreign trade in oils and fats are not available, at least no official annual statistics have been published by the Dutch Government during the war.

The war has caused many changes in the sources of supply. At times one district would be the chief supplier of a certain product, while a few months later the course of trade might change entirely to another district or country. Prices, freight rates and embargo and blockade considerations are factors which may cause a departure from the usual channels of trade.

The amount and character of machinery required for a margarine factory depends largely on the capacity of the plant. One large manufacturer of margarine machinery shows six or eight different emulsion churns for varying purposes. Special churns are made for vegetable margarine. Kneading machines, mixing (or blending) machines, pressing and rolling machines, drying machines, melting tanks, milk sourers, ice-water

butter. In recent years very few complaints have arisen in regard to the fraudulent substitution of margarine for butter. The Dutch Government arranged about 10 years ago that a control stamp should be placed on pure butter. Before butter was labeled in this manner many serious complaints arose and the good reputation of Dutch butter suffered in foreign markets. According to the existing regulations, margarine must be sold in properly marked packages, or when sold in bulk the word "margarine" must be printed on the paper in which it is to be wrapped. Bulk packages must also be suitably marked.

Figuring on the basis of the margarine production during 1916 (which was estimated at 180,000 metric tons) and a total population of about 6,000,000, it can be ascertained that the amount produced annually per capita is 30 kilos (66.1387 pounds). Unofficial sources have estimated the amount of butter produced in Holland last year (1916) at about 70,000 metric tons. This amount is less than half of the total margarine production. Using the same population figures there were 11.67 kilos (25.57 pounds) of butter produced for every man, woman and child in the Netherlands. The figures given above are the best estimates which can be made from the sources available.

If 30,000 metric tons of margarine are consumed in Holland annually by a population of 6,000,000 persons, the annual consumption per capita is 5 kilos (11.02 pounds). It is remarkable that the amount of butter consumed per capita is almost the same as the amount of margarine consumed per capita. The annual domestic consumption of butter is placed at about 28,000 metric tons. Therefore, the amount of butter consumed per capita is 4.67 kilos (10.3 pounds). From the above statistics it is obvious that margarine is not in disrepute in the Netherlands, and is generally used by the middle and lower classes. Its use has increased since the war began.

## AMERICA'S RELATION

to the

## WORLD WAR

Shall Our Nation Live or Perish?

As viewed by the Editor  
of the  
Manufacturers Record

Published in pamphlet form, in  
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TEN CENTS PER COPY

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pumps, fat pumps, clarifying tanks, temper boilers and cooling drums are all being manufactured in Holland in many sizes and varieties. Some special machinery, such as automatic cask-emptying machines, large emulsion churns and hydraulic oleo presses, are manufactured for concerns that wish to produce margarine on an unusually large scale. The smaller factories generally purchase machinery which combines several operations.

As compared with the smaller Dutch creameries, the smaller margarine factories assume gigantic proportions. The weekly output of the smaller margarine factories ranges between 100 and 200 metric tons per factory. An average factory would produce about 120 metric tons weekly. The large and small factories produce margarine of about the same quality. The larger factories are possibly in a position to make a greater variety of margarine, while the smaller factories are able to specialize on some particular formula or process of manufacture.

Subject to the regulations prescribed by the Dutch Government, butter and margarine may be produced in the same plant. Since the control exercised by the Government is unusually severe and is made at the expense of the churner, the smaller factories do not produce butter. Even the larger factories produce butter only for their own purposes; that is, to be used in the manufacture of margarine. Only one margarine factory given in the Dutch directory of manufacturers produces butter for sale, so that it is also listed as a creamery where natural butter is manufactured.

In order that margarine may be easily distinguished from butter, the Dutch Government has prescribed that it shall not contain more than 10 per cent. of natural

### Denmark's Production and Consumption of Margarin.

The production of margarin in Denmark in 1916, according to report of Consul-General William H. Gale, Copenhagen, amounted to 56,500,000 kilos (124,781,620 pounds). The components used in the manufacture of the margarin, with quantities in pounds, were: Oleo, 3,897,774; premier jus, 4,276,967; neutral lard, compound, etc., 1,589,533; coconut oil, 64,974,582; arachis oil, 6,012,005; cotton oil, 7,815,388; sesame oil, 11,327,338; soya oil, 4,303,401; various vegetable oils, 92,504; various animal fats, 1,510,166; total, 105,799,748 pounds. In addition to these, milk, water, salt, butter yolk, syrup and lecithin are used.

Most of the animal oil used in the manufacture of margarin is imported from America. The amount from that country is 8,818,500 pounds out of a total of 9,700,340 pounds. The situation is similar in the case of cotton oil. Most of the coconut, sesame or soya oil used is manufactured in Denmark from imported raw material.

Butter manufacture and margarin production are absolutely separate. Butter is manufactured in the dairies or on the farms. The manufacture of margarin is prohibited in places where butter is produced, and only permitted in special margarin factories under the supervision of the State.

The production and consumption of margarin per capita in 1916 were 43 pounds and 44 pounds, respectively. The production and consumption of butter cannot be given exactly, but may be estimated at about 77 pounds and 6.61 pounds per capita, respectively, in 1916.

### Municipal Pasteurizing Plant at Tuscaloosa.

Tuscaloosa, Ala., September 7.—[Special.]—The city of Tuscaloosa, already accepted as a model by the Federal Public Health Service in the matter of municipal sanitation and hygiene, is preparing to take another important step in health control by the erection at an early date of a municipal pasteurizing plant, creamery and slaughter-house. Dr. J. J. Durrett, city and county health officer, in collaboration with Federal experts, is working on the plans for the plant, which will be built under Federal supervision. Members of the United States Public Health Service have made two trips to Tuscaloosa, and will return when construction work begins. The plant will be erected at a cost of \$17,000.

## FLORIDA SUITED TO EXTENSIVE CATTLE RAISING.

### Texas Ranchmen Declare Conditions Ideal for Cattle, Sheep and Goats.

Jacksonville, Fla., September 7.—[Special.]—The impression made upon a prominent Texas ranch owner who recently visited the great cattle ranges in Florida was that nature has been too good to the cattle industry in this State to encourage improvement in the crude methods of breeding and handling stock which have been in vogue for years, for the cattle owners have made money without trying.

Very little attention had been given to developing the cattle industry or to eradicating the cattle fever ticks, which are a serious handicap to that industry in any State where they exist, until the Florida Cattle Tick Eradication Committee was organized about 16 months ago and financed by a number of the leading landowners and business men, who had a vision that Florida was not living up to her opportunities.

The educational campaign conducted by the committee has caused widespread interest in tick eradication, resulting in the recent Legislature creating a State Livestock Sanitary Board and providing \$150,000 for eradicating cattle fever ticks and control of hog cholera and other animal diseases during the biennial period. Twenty-one counties have made appropriations for building dipping vats.

Believing that the time was right to start developing a better quality of cattle, the members of the committee conceived the idea of inviting a few of the leading Texas experienced cattlemen to visit Florida, look over the range conditions and advise as to best method of establishing a solid foundation for a better cattle industry.

Those who accepted the invitation and spent a week during the latter part of August and early part of September inspecting range conditions were M. Sansom of Fort Worth, president of the Cassidy Southwestern Commission Co., director of the Federal Reserve Bank and owner of large cattle-ranch interests; W. N. Waddell of Fort Worth, Texas representative of a Chicago bank specializing in cattle paper, owner of a large ranch, and for four years president of the Texas Livestock Sanitary Commission; A. C. Williams of Fort Worth, assistant secretary of the Texas Cattle Raisers' Association, and editor of The Cattleman, a monthly publication which is recognized as authority on range cattle subjects; Caesar Kleberg of Kingsville, manager of the King ranch, which covers 1,700,000 acres and supports approximately 100,000 cattle, in addition to thousands of sheep and goats and about 25,000 horses, and T. T. East of Kingsville, owner with his brother of a 400,000-acre cattle ranch.

Accompanying the party on the trip through Florida were: George M. Rommel, chief Bureau of Animal Husbandry Division of the United States Department of Agriculture, and Dr. Leslie J. Allen of Oklahoma City, Okla., until recently inspector in charge of tick eradication work in Texas and now holding that position in Oklahoma. The Florida escort included P. L. Sutherland, manager of the Florida Cattle Tick Eradication Committee; C. L. Gaines and J. G. Boyd of Jacksonville, and W. F. Ward, manager of the Kissimmee Cattle Co., formerly chief animal husbandman for the Bureau of Animal Husbandry.

The first day's trip was an automobile ride over hard roads through Duval, Flagler, St. Johns, Volusia, Seminole and Orange counties to Kissimmee. That territory comprises both open range and agriculturally developed land, ideal conditions for breeding and finishing cattle.

Four days were spent in riding hundreds of miles over the finest grazing range in the United States, so admitted by every guest from Texas. It included the Kissimmee River Valley in Osceola, St. Lucia, Okeechobee, De Soto and Polk counties. One day was spent in Clay county visiting the large agricultural developments where thousands of acres of corn and velvet beans are as fine as can be found in the world, and where a development of better livestock has been started.

Mr. Sansom expressed his impression of Florida's opportunity for raising cattle in these words: "The only trouble you have in Florida, nature has been too good to you. If it had done half as much for Texas the Government officials would not now be worrying about the future meat supply for the United States and our Allies. I have seen Texas when the cattle were no better than the grade I have seen on this trip. We

started 25 years ago to improve our herds and stayed with it until today we furnish some of the best breeding and feeding cattle for Northern States.

"Florida now has very great advantage over pioneer Texas, as you can get some of our good breeding stock and make rapid progress breeding up your herds. The Osceola Cattle Co. in Osceola county has started along right lines, and the manager gave me some figures on calf production which show that his herd are producing a larger percentage of calves than we get in Texas.

"But your luxuriant range grasses and abundance of stock water are almost unbelievable. Your range will carry from three to ten times as many cattle per section as the Texas land in a normal year. And when I say normal year I want you to remember that sometimes the rain clouds forget all about Texas for months at a time, and then our ranges suffer from drouth, as large sections of them are doing at this time.

"You have a sheep country as good as exists and a goat country better than any other. It is too bad that you do not raise more sheep on your ranges, for they do not hurt the cattle pastures, eating only the tender blades down under the more mature grass. We run thousands of sheep on our cattle ranges in Texas. The goats will be a distinct benefit to the Florida ranges, as they do not eat much grass when they can get underbrush, briars and weeds. By having those cleaned out of the pastures the grass will have a better chance to grow.

"I am informed that Florida does not have to combat coyotes, which are our worst sheep enemies, so you really have no serious losses to anticipate on your sheep investments. And yet there are very few sheep on the ranges we have visited. It is to be hoped that your cattlemen will use more sheep on the ranges.

"The range country should become the calf incubator for the Southeastern States, the offspring being sold at weaning time or as yearlings. That will give your ranges a larger carrying capacity for breeding stock and let the grain-producing sections do the finishing."

## Revival of Mississippi River Transportation.

Declaring that during the last 90 days there has been more real effort made to navigate the Mississippi River and its navigable tributaries than has been made in a number of years previously, the St. Louis Chamber of Commerce Bulletin, in its issue of September 1, relates the following activities:

"On July 18 the United States steamer Minneapolis and four plow-laden barges with a cargo weighing 724,311 pounds arrived at the 'port of Minneapolis' from Moline, being the first boat to enter Minneapolis in 40 years. This was the first notable example of the transportation of commodities by barge loads.

"On August 1 a trial barge line trip of over 681 miles from Sheffield, Ala., about 125 miles from Birmingham, consisting of a tug towing three pig-iron laden barges for the Keystone Steel & Wire Co. of Peoria. 'The Peoria concern,' says the Peoria Journal, 'proved beyond all doubt to the Mississippi Valley at large that such a waterway line for transportation purposes is practical and at the same time has blazed a path that is sure to result in the awakening of the West to the possibilities of the Mississippi and its tributaries.'

"The trip from Alabama was made via the Illinois, Mississippi, Ohio and Tennessee rivers with 1200 tons of Alabama iron ore. The only difficulty was experienced at the Copperas Creek Locks, a day's journey from Peoria, where the mechanism of the locks, through lack of usage, became inoperative. This trip was entirely successful, and the company is preparing to continue the shipments until the Illinois River is closed by ice.

"W. H. Sommer, president of the Keystone Steel & Wire Co., is vice-president of the Mississippi Valley Waterway Association, organized in St. Louis in June.

"St. Louis is responsible for the third test of the movement of low-grade commodities via the river.

"A fleet of steel barges carrying 3000 tons of coal, propelled by the Federal steamer Nokomis, left St. Louis July 30 for St. Paul. Edward F. Goltra, president of the Mississippi Valley Iron Co., procured from Secretary of War Baker, through General Black, the Government barges and steamer used in the trip. The river distance is 675 miles, and the trip lasted 14 days. The barges and towboats are now en route to St. Louis with a cargo of iron ore from the Mesabi Range. Other trips of this sort are being planned."

## American Business Men Plan Important War Convention.

The keynote of the War Convention of American Business Men, to be held under the auspices of the Chamber of Commerce of the United States at Atlantic City September 18 to 21, will be given by Secretary of War Baker, who will tell the business men from all parts of the country what the Government expects of them in connection with the war. It is expected to be by far the most significant gathering of the kind since the beginning of the war.

Secretary Baker will bring out the underlying thought of the entire convention, which is the duty business owes the Government in war. He will speak as president of the Council of National Defense, and will indicate to business men what services they can render the Government in connection with its prosecution of the war.

The convention on later days will divide into groups of business men to consider the application to different lines of business of the broad principle as developed by the Secretary of War in his address.

During the convention several Cabinet officers, Government officials and a number of leading business men of the country will make important addresses. These will include Secretary of Interior Lane, Herbert C. Hoover, the food administrator; Frank A. Scott, chairman of the War Industries Board; George M. Reynolds, president of the Continental Commercial National Bank of Chicago, and A. C. Bedford, president of the Standard Oil Co. and chairman of the Committee on Oil of the Council of National Defense. In addition, Ambassador Boris Bakhmeteff of Russia will discuss the Russian situation from a business standpoint, and Lord Northcliffe, chairman of the British Mission, will outline some of the ways in which American business men can help the Allies.

The special subjects to be discussed by the convention are:

The Duty that Business Owes the Government in War. How May the Business of the Country Render Greater Service in Winning the War?

a. How May We Best Provide For and Protect Our Forces on Land and Sea, and Those Dependent Upon Them at Home?

b. What May be Done to Control Prices?

c. How May Priority Be Most Quickly and Effectively Established?

d. How Shall Greater Efficiency in Land and Water Transportation Be Developed?

e. What Steps May Be Taken for Better Education of the Nation on the Issues at Stake in the War?

Ways and Means by Which Business May Most Readily Adjust Itself to the Conditions Produced by the War?

a. How Shall We Provide for Business Enterprises Not Essential to the Nation in War Time?

b. Food Conservation, Its Special Importance to Business Men.

c. Industrial Relations and Employment Problems.

d. Foreign Trade, Banking and Credit in War Time. For What Readjustments After the War Must Business Prepare?

a. What Will be the Course of Prices on Raw Materials and Finished Products After the War?

b. How Shall We Plan for Replacing Our Men in Industry as They Return From the War?

c. What New Responsibilities in International Relations May Be Expected After the War?

## Million Acres of Cut-Over Lands in South Offered to Western Cattle Owners.

New Orleans, La., September 7.—[Special.]—One million acres of cut-over lands situated in various parts of the Gulf Coast territory were yesterday offered Western cattle owners of the drouth district, sale or lease, for the transfer of their herds to the South, in a telegram sent by A. G. T. Moore, assistant secretary of the Southern Pine Association, to Secretary David F. Houston of the United States Department of Agriculture. Secretary Houston referred the proposal to a conference of 100 Government representatives and ranch operators who are now in session at Washington discussing means for stimulating the nation's meat production.

Organization has been effected by the Piedmont Hosiery Mills Co., Lawndale, N. C., with \$50,000 capital, W. R. Newton being president. This company will erect a wooden building and install 20 knitting machines with accompanying equipment, including the electric power drive, costing \$10,000. Its daily capacity will be 200 dozen pairs of hose.

## \$5,513,345 FOR ADDITIONAL ELECTRICAL FACILITIES.

### Baltimore Corporation Planning Big Improvements to Meet Increasing Demands.

Extensive additional developments (estimated to cost \$5,513,345), and especially on the waterfront east of Baltimore, are planned by the Consolidated Gas, Electric Light & Power Co. These betterments are in connection with the corporation's recent announcement, including plans for organizing the Consolidated Power Co. and issuing \$5,000,000 of five-year gold notes, besides providing a mortgage issue for \$15,000,000 to cover the generating station which will be built, and for other improvements.

The company's chief engineer and superintendent have completed the plans and specifications, estimating the total expenditure under the new financial plan at \$5,513,345.

The principal additions to the electric plant are to be at Westport, where power units are to be constructed. Other details include facilities for distributing a great amount of electricity at Canton, Colgate Creek, Bear Creek and Sparrows Point, all in Baltimore's industrial district, where many large manufacturing plants are now in operation.

At present the company's capacity is about 55,000 kilowatts and it has on file applications for about 45,000 kilowatts additional, which are to be provided by building the new plant for a capacity of 50,000 horse-power. This generating station will be installed within the next 18 months, and it will be planned to admit of future extensions when required by the growth of the city. It and accompanying betterments will practically double the Consolidated electrical generating and distributing facilities in and around the city of Baltimore.

The Consolidated Power Co. will be controlled by the parent corporation and probably have the same officers. Its notes are to be guaranteed by the present corporation and secured by a deposit of its gold bonds. Physical details are under consideration, and the management expects to proceed with the betterments as soon as the first funds are made available for expenditure.

### Cream of Tartar Substitute Wanted.

STEYNS & Co., Bagerstr. 9, Copenhagen, Denmark.

We wish to purchase 20 to 25 tons cream of tartar substitute; please send samples, marked "Of no value" in triplicate. Goods purchased by us are for use in Denmark in accord with agreement with the "Corporation de Negociants" (Mercantile Association) and the "Chambre des Fabricants de Copenhague" (Board of Manufacturers of Copenhagen). Have merchants make offers, with samples of goods, as specified under following: Proposals not considered accepted unless confirmed; specimens and samples to give reasonably correct idea as to character of goods; quality of merchandise distinctly stated, quantity that can be delivered, when shipment can be made, kind of package, terms of payment; quotations should include amount of our commission, either at time of agreement or to be deducted from amount of bill.

### Partial Recovery in Coal Output.

In the Government's weekly report for September 8 on the production of bituminous coal and the causes of loss of working time, compiled by the Geological Survey, Department of the Interior, it is noted that a partial recovery from the depression of the preceding week was registered by the ratio of tonnage produced to full-time capacity for the week ended August 25. Mines in 12 States, representing more than one-third of the output of the country, reported a production amounting to 68.5 per cent. of their full-time output as limited by the labor force at present available. As compared with the ratio for the week ended August 18, this was a substantial improvement, but the index is still far below the level attained in July. The recovery was largely due to the partial cessation of the Illinois strikes, which raised the ratio for that State from 54.8 to 69.3 per cent. The loss of working time in Eastern Kentucky and Tennessee, remarked in last week's bulletin, became even more acute.

Mines in this area realized but 4.7 per cent. of their full-time output.

### PERCENTAGE OF PRESENT FULL-TIME OUTPUT PRODUCED IN CERTAIN STATES BY ALL OPERATORS MAKING WEEKLY REPORTS.

State.	July 28	Aug. 4	Aug. 11	Aug. 18	Aug. 25
Iowa	87.2	87.5	82.6	85.3	86.3
Illinois	76.9	72.6	70.3	64.8	69.3
Indiana	67.8	69.5	63.2	71.8	69.3
Ohio	69.4	73.7	70.3	73.2	68.6
Western Pa.	76.3	78.1	73.2	69.4	75.2
Winding Gulf region,					
West Virginia		70.5	77.1	83.0	88.7
Southwestern Va.		91.9	94.0	93.9	94.1
Eastern Kentucky					
and Tennessee		82.6	68.6	74.2	4.7
Alabama		91.4	88.4	88.8	86.1
Kansas and Missouri		69.5	69.4	72.2	76.2
Okl. and Ark.		79.0	63.4	66.0	70.0
Total reporting from beginning	75.3	73.0	71.8	62.5	68.5

The same recovery from the slump of the week ended August 18 is shown by comparable statistics of coal originated by the principal bituminous carriers. Shipments for the week ended September 1, in turn, slightly exceeded those for the week of August 25. Illinois, Indiana, Western Kentucky, Pennsylvania and Ohio recorded increases more than sufficient to counterbalance the abnormally low shipments of the Southern Appalachians, still affected by the strike.

### CARLOADS OF COAL ORIGINATING ON PRINCIPAL COAL-CARRYING ROADS.

District.	Aug. 11	Aug. 18	Aug. 25	Sept. 1
Ala., Eastern Ky. and Eastern Tennessee	8,275	6,755	5,368	5,550
Ill., Ind. and Western Ky.	30,243	30,927	22,423	22,938
Pennsylvania and Ohio	46,966	44,350	47,058	47,622
W. Virginia and Virginia, smokeless	12,686	13,258	14,021	13,664
W. Virginia and Virginia, high volatile	19,621	18,897	18,790	18,247
West of the Mississippi	1,858	1,700	1,762	1,923
Total	109,640	105,887	109,431	109,944

In the face of a decrease in losses attributed to labor during the week ended August 25 the car supply continued to improve. Of the causes of lost time, for all mines reporting, an inadequate car supply was responsible for the loss of 10.3 per cent. of the full-time output and labor difficulties for 10.9 per cent. Car shortage was most acute in Indiana and Ohio. In Illinois labor trouble remained the dominant limiting factor, though reducing the output little more than half as much as during the preceding week. Lack of orders was still reported from Iowa, and also by three small block mines in Indiana and Southwest Virginia. Mines at Assumption and Moweaqua, Ill., have closed, the reason reported being inability to operate under present scale of prices.

Statistics of cars of coke loaded from week to week by the principal carriers of beehive coke are presented for the first time in this issue as a barometer of the country's coke production. In the week ended September 1 these roads loaded more coke than in any other week since June.

### CARLOADS OF COKE ORIGINATING ON CERTAIN COKE-CARRYING ROADS.

Week ended	Cars	Week ended	Cars	Week ended	Cars
June 9	14,189	July 7	13,151	Aug. 4	12,965
June 16	13,904	July 14	14,615	Aug. 11	13,428
June 23	14,985	July 21	14,794	Aug. 18	13,110
June 30	15,501	July 28	14,276	Aug. 25	12,648
				Sept. 1	14,851
Total, month of June	62,734	Total, month of July	61,287	Total, month of August	64,394

\*Five-day week.

Factors tending to limit the production of coke are analyzed in the accompanying table showing operations in the Connellsville and adjacent districts of Pennsylvania. Although labor shortage remains the dominant cause restricting output, it will be seen that for the week ended September 1 the shortage of both coal and coke cars became more pronounced.

### PRODUCTION OF BEEHIVE COKE AND OF COAL, WITH CAUSES OF LOST TIME, AS REPORTED BY OPERATORS IN THE CONNELLSVILLE, GREENSBURG AND LATROBE DISTRICTS, PENNSYLVANIA.

	Coke.			Coal for Shipment.			Total Coal Shipped and Made Into Coke.		
	Week Sept. 1.	Week Aug. 25.	Per cent.	Week Sept. 1.	Week Aug. 25.	Per cent.	Week Sept. 1.	Week Aug. 25.	Per cent.
Capacity, based on railroad rating	428,120	428,120	100.0	415,400	415,400	100.0	1,067,580	1,067,580	100.0
Production	295,750	295,750	69.1	152,000	152,000	36.6	595,625	595,625	55.8
Losses:									
All causes	132,370	132,370	30.9	263,400	263,400	62.7	461,955	461,955	43.7
No coal cars	72,135	72,135	16.8	67,250	67,250	16.2	67,250	67,250	6.4
No coke cars	32,905	32,905	7.6				48,458	48,458	4.6
Labor shortage:									
Mine	15,610	15,610	3.6	195,350	195,350	47.0	218,765	218,765	20.7
Yard	72,135	72,135	16.8				108,302	108,302	10.2
Strike									
Plant disability	210	210	0.1	650	650	0.2	965	965	0.1
All other causes	12,110	12,110	2.8	150	150	0.0	18,315	18,315	1.7

## Many Improvements Under Way at Knoxville.

Knoxville, Tenn., Sept. 7.—[Special.]—The city of Knoxville sold to Estabrook & Co. of New York on August 21, 1917, \$150,000 5 per cent. bonds at \$102.07. This money will be spent in paying the city's part for the erection of two handsome concrete viaducts across the Southern Railway. One viaduct will be constructed at Broadway that will eliminate one of the most dangerous grade crossings in the city and will give a new route to the northern portion of the city. The old steel Gay-street structure that has been a burden to the city will be removed and a handsome reinforced concrete viaduct will be erected in its place. These two structures will be built by the Southern Railway Co. and the city of Knoxville jointly. The Southern Railway engineering department has the plans about completed. The city of Knoxville also has plans.

Within 30 days Knoxville will offer for sale \$800,000 30-year serial improvement bonds and will retire so much of these bonds each year until the entire issue is retired. This money will be spent by the city for a \$100,000 addition to the Knoxville General Hospital; for improvements to the school building in the new territory that was annexed by the last Legislature, extending the water mains and building new streets.

A permit has been issued for the new Farragut Hotel that will be one of the most modern hotels in the South. It is located where the Old Imperial stood, with an additional frontage on Gay street, and will be of steel construction. The contractors are now at work excavating, and construction will be started as soon as the excavating is completed. The company erecting this hotel is composed of citizens of Knoxville, with some outside associates.

The Southern Railway Co. will start within a few days the erection of a \$40,000 Railroad Y. M. C. A. building.

The city has resurfaced with Trinidad pitch lake asphalt 75,000 square yards of brick paving. This brick paving was laid 20 years ago, and became almost impassable. The work was done by the Murray Construction Co. of Knoxville, Tenn. It has paved with Trinidad pitch lake asphalt, five-inch concrete base with binder and one-half inch sheet asphalt, 45,000 square yards of streets that had water-bound macadam. It has used and spread 45,000 gallons of crude oil on its macadam streets outside of the paved district.

In the way of school improvements, the Moses school addition and equipment completed cost about \$70,000; Maynard school, practically new, \$20,000; addition to the Van Gilder school, \$20,000.

The city is now expending \$225,000 on the improvement of the water plant. A new 15,000,000-gallon pump at the pumping station is about completed and will be installed shortly. Beside this work, new mains have been laid and fire hydrants extended.

The entire fire department will be motorized in the city of Knoxville by October 1. The contract has been awarded to the American La France Company.

### For Daily Output of 1000 Tons.

Two thousand acres of coal land will be developed for a daily output of 1000 tons of coal by the Greenbrier Colliery Co. of Sevy, W. Va. Machinery to include an electric power plant and motors costing \$40,000 will be installed in connection with other equipment.

This company has organized with the following officers: President and treasurer, W. S. Wood of Charleston, W. Va.; vice-president, W. H. Baker, Jr., of Huntington, W. Va.; secretary and manager, J. Wade Bell; construction engineer, Philip Konrad, Kanawha Falls, West Virginia.

# The Iron, Steel and Metal Trades

## Production Maintained in Birmingham District, With Home Consumption Notably Strong.

Birmingham, Ala., September 10.—[Special].—Despite the fact that the pig-iron market is still considered a little weak, there is no inclination to make concessions on quotations, \$50 being maintained for No. 2 foundry and basic for this year's delivery and \$48 for 1918 in the South. A few sales of high-silicon iron sold the past week around \$53 per ton, while some sales of special brand and analysis irons in small lots at \$51 and \$52 were also noted. Iron manufacturers in the South are inclined not to deal with brokers. Inquiries are still being received, but in many instances reduced quotations are being sought. Reports of sales of iron in the Birmingham district at \$46 and \$47 per ton, delivery this year, were traced to a lot of about 12,000 tons, resale iron, as it were, the produce being destined for export, a little tonnage consigned to Sweden being stopped by the Government. A waiting condition continues among the manufacturers in this section as to the attitude of the Government, but no expressions are to be heard as to the probabilities of extent or control. Every attention is being given to make and delivery, and some satisfaction is noted in the fact that with one furnace less in operation, the Alabama make in August was 500 tons or more greater than in July.

Better feeling prevails in this district by reason of the delay of threatened trouble in the coal-mining section of Alabama, the United Mine Workers of America, Alabama District No. 20, sending a delegation to Washington to confer with officials there looking to assistance in getting some of the demands, recognition or what not from the operators here. In the meantime, all operations in the mining section will be maintained. The coal and coke supplies for a while were far below normal, and there was some apprehension by the iron manufacturers.

The accumulated stocks of pig-iron in the Birmingham district are steadily going down; in fact, estimates now indicate that less than 100,000 tons are on yards in this district. The railroads are striving to keep up the service that has been given for the past several weeks, and the co-operation has brought results. The same co-operation is to be kept up until only the probable make will be considered in handling pig-iron.

Efforts are being made to get hold of some more resale iron, but purchasers are not willing as yet to sell. Investigations show a large number of ships tied up at various ports with bills of lading including pig-iron from the South, but the furnace company officials in the Birmingham district do not anticipate any trouble, even if this iron should be thrown on the open market. With the order-books as well supplied as they are, the hull in buying will have to continue for a while yet before there will be any reduction in quotations.

One of the North Birmingham furnaces of the Sless-Steel Steel & Iron Co. has been changed back to foundry iron from basic to meet demands. This company is nearing the end rapidly of the 75,000-ton order of the British Government for basic iron, which order was accepted last year.

The torch will be applied in the next few days at the Trussville furnace of the Birmingham-Trussville Iron Co., all preparations to that end being about completed. John H. Adams, general manager of this company, is confident that when once in operation the furnace will respond to all expectations of the furnace master and the company officials.

Home consumption of pig-iron is strong. Steel production in this part of the country shows no change, and maximum output is reported at all plants. No information is being given out by these concerns, for the reason that no few orders are coming from the Government, and that the product is being shipped out carefully, destination being strictly withheld.

Machine shops and foundries in the Birmingham district are also working hard on Government as well as domestic business. In some instances, foundries and machine shops in Birmingham are not only working on day and night shifts, but on Sundays as well, in an endeavor to fill some of the business promptly. One of the larger foundries during the past week started several cars loaded with cast-iron shells for the Government,

castings for gun-turning lathes for the Government, castings for marine engines, also a Government contract indirectly, then cotton compress machinery for Louisiana and sugar refinery machinery for Cuba. This same plant has contracts in hand for other work. Practically all machine shops and foundries in Birmingham are working to capacity, with a larger force of men than ever before employed. But little is to be heard on labor troubles, though some of the more active of the foundries and machine shops in this district are on the open-shop plan. Union machinists and apprentices, however, are finding plenty of work.

Preliminary work in the development of the Fairfield Works of the Tennessee Coal, Iron & Railroad Co., on which not less than \$11,000,000 will be spent, is being rushed. Side-tracks for the railroads are in and material is now being placed. Excavation work will be under way shortly, men and teams being engaged on all sides.

Further announcements are made of land purchases by the Tennessee Land Co., subsidiary to the Tennessee Coal, Iron & Railroad Co., at Mobile, adjacent to the site purchased some time ago for a shipbuilding plant. The new purchase will be used to build homes on for employees of the big plant proposed.

Sale of No. 1 soft iron was made during the first of the past week in Birmingham to foundries connected with one of the shipbuilding industries being established on the Gulf, and delivery was stipulated for the near future. This is considered the first of a big business that is likely to come this way from shipbuilding plants at or near Mobile. Steel shapes will be needed mostly, but there will be need for pig-iron, but the purchasers are connected with one of the new enterprises announced at Mobile.

Further improvement is noted in the scrap iron and steel market, old material, in the Birmingham district, and some more changes are announced in quotations. Heavy melting steel goes up another \$1, while stove plate jumped up \$2. Dealers say that the recovery is coming on slowly, but satisfactorily. It is hardly believed that conditions prevailing two months ago will be reached for a while yet. There are some inquiries in hand for scrap, and consumers who have contracts in with dealers are urging deliveries, indicating consumption. Considerable scrap is still to be seen on yards, the buying of country scrap again starting in and better feeling noted. Some of the inquiries that have been received recently came from other territories.

Following quotations for pig-iron and old material are given out in Birmingham:

PIG-IRON.	
No. 1 foundry and soft.....	\$49.50 to \$50.50
No. 2 foundry and soft.....	48.00 to 50.00
No. 3 foundry.....	47.50 to 48.00
No. 4 foundry.....	47.00 to 47.50
Gray forge.....	46.00 to 46.50
Charcoal.....	55.00 to 56.00
Basic.....	48.00 to 50.00
OLD MATERIAL.	
Old steel axes.....	\$32.00 to \$33.00
Old steel rails.....	34.00 to 35.00
No. 1 wrought.....	27.00 to 28.00
Heavy melting steel.....	21.00 to 22.00
No. 1 machinery.....	24.00 to 25.00
Car wheels.....	23.00 to 24.00
Tramcar wheels.....	20.00 to 21.00
Stove plate.....	19.00 to 20.00
Shop turnings.....	11.00 to 12.00

## Iron Market Waiting on the Government.

The Matthew Addy Company's market report of September 8 says:

"The pig-iron market waits upon the Government. It is eight weeks ago that it was announced the Government intended to fix prices on pig-iron. And since that time the entire trade has been practically paralyzed, as far as new business is concerned. Fortunately, there has been plenty of old business to keep everyone occupied, so that no great damage has been done except the wear and tear to producers' nerves. Suspense is always trying. And the whole iron trade wishes if the Government intends to do anything that it would do it without delay and have the agony over. It is very certain that the ironmasters of the country are loyal and law-abiding patriots. They will do all in their power to furnish the Government the sinews of war—that is too obvious to need public expression—and they will do their utmost to meet Uncle Sam's wishes in all things.

But none the less, they feel that between the announced program of price-fixing and the actual fact there has been an unnecessarily prolonged interval, and this now is beginning to have serious results. It is realized by all ironmakers that it will be a difficult thing to make a hard and fast rule as regards iron prices; so much regulation all along the line will be necessary; ore, coke and lime rock all will have to be fixed. The Government can hardly fix the price of a six-egg omelette at 25 cents and allow eggs to be sold at \$1 a dozen, as it were.

"Of course, there has been some little buying of iron all the time, iron that is absolutely needed for immediate use. But everyone who could wait has been waiting, and that is the situation today.

"In regard to the underlying facts in the market, there is no question that iron is in short supply, and this condition is world-wide. At present the American furnaces are in more trouble than ever before—labor is short, coke is short, and there is no furnace in the country that has not had great difficulty in assembling raw materials. Many furnaces have been obliged to bank off and on, and some have been forced out of blast. There is urgent need for all the iron that can be made, and the best judges believe that this will be true not only during the period of war, but for years afterwards."

## GOVERNMENT STEEL PRICE-FIXING A GIGANTIC TASK.

Unofficial Advices State Steel Will Be \$68 a Ton and Iron \$38—General Market Readjustment Under Way—Pig-Iron Prices Lower.

New York, September 10.—[Special].—The gigantic task which the Government has undertaken in fixing the prices of steel and iron is shown in the repeated postponement of action. During the past week prominent producers were called upon for additional data, and there is still no appointment for the expected meeting of the War Industries Board and the general committee of the steel manufacturers. Reports were circulated in steel circles last week, which were said to have come from reliable sources, that the Government will establish a base price of \$68 a ton and a bonus of 10 per cent. per ton on steel and \$38 per ton for pig-iron.

When the Government prices are finally announced the fact may be taken as the signal for the inception of a general readjustment in finished steel products. Indeed, it would be impossible for the steel trade to continue its present rate of production without a readjustment of prices to the general trade, and once this starts no one can predict how far it will extend. The present attitude of the mills making the heavy products is that they will not consider additional contract business before October 1 at the earliest. When they believe the time ripe they will be eager to establish a price schedule that will enable regular forward buying to be resumed. At present their interest is in filling the very profitable orders now on their books.

The market for semi-finished steel and rolled products last week continued to drift. Indications of coming readjustments are chiefly those given by resale transactions, which are but meager basis for conclusion. Offerings of steel bars on contract at less than 4½ cents, lately quoted as the minimum market, became sufficiently numerous last week to be taken into account, and the steel-bar market may now be considered quotable at 4 to 4½ cents per ton. Even at 4 cents there is no disposition on the part of buyers to take hold.

A decline in the minimum quotation on plates is also to be noted, sales having been recorded at 8 cents and a trifle less, whereas formerly the market was quotable at 9 to 10 cents. It now appears that if 8 cents is the minimum of the plate market, it is also the maximum, so far as the broad-market is concerned. While the weakening of this market is due in part to the export embargo, the more important influence is the new capacity. The latest estimates are that new capacity to come in during the next six months, all in tank plate and wider sizes, is about 125,000 tons a month. Two or three months ago 75,000 to 80,000 tons were to come in, there having been new projects since then. This would more than double the output in medium and wide plates.

While the sheet market does not definitely decline, shipments that can be obtained grow earlier and earlier,

indicating clearly that fundamental conditions are growing easier, even though the mills do not recognize the fact by way of making lower quotations. The only distinct decline that has occurred has been in galvanized, which softened a trifle several weeks ago. A few mills can now offer deliveries in three weeks' time, though most of them are better filled than that, and, of course, in any event they have contracts on which specifications are still to come in. Counting out all influences from Washington, the sheet market is evidently lined up for a price readjustment well before the end of the year. There is little disposition to speculate as to where the readjustment will carry the market. Consumers do not appear to be interested, as even if they had an idea of the prospective price, they would not know whether the state of their business would justify paying it. In any event, Washington is likely to take action in the near future of a nature as to speed the readjustment that would occur in the natural course of trade.

At a meeting of tinplate manufacturers at Pittsburgh last week the request from the Food Administrator that contracts with tanners be made for a full year instead of six months was considered. The question of sheet-bar contracts for an entire year is involved, and negotiations with the steel mills on that matter must be first taken up. The draft of tinplate workers for war service figures in calculations for the coming year's output, and there is the possibility of cutting off one turn at some of the mills in view of labor shortage.

Wire rods continue to show considerable strength. On 6000 tons of wire rods for shipment last week \$95 was done, and \$115 for high-carbon stock.

Orders for approximately 3,200,000 tons of steel products to be used in the manufacture of war munitions and in the building of ships and railroad equipment have now been placed by the United States Government. The orders have been placed with the various steel companies, but in the past few days Federal authorities have distributed orders directly to several independent steel companies for large tonnages of steel shapes and plates to be used in the construction of standardized steel cargo boats, contracts for which were awarded by the Emergency Fleet Corporation on the last day of August. Of the 442,000 tons of plates and shapes required for building these boats, only the portion that will be required for shipment this year has been distributed.

All of the steel—about 110,000 tons—for 11,000 of the 20,000 cars to be constructed by this country for the French railroad, which has been placed at the disposal of the American Army in France, is to be furnished by the United States Steel Corporation. The steel for the other 9000 cars to be purchased will be furnished by independent steel mills, some of which recently refused Government ship-plate orders at 2.90 cents, but accepted Japanese orders at 8 cents per pound. Thus far the United States Steel Corporation has taken 2,400,000 tons of steel of the total orders placed by the Federal Government, or about 75 per cent. of the total tonnage bought.

The pig-iron market continued to decline last week, and it is now possible to purchase basic iron at \$48 valley, while in some cases it is said that \$47 could be done. The market has thus declined \$6 since late in June, when \$54 was quoted. There was no market demand for basic pig-iron last week. This does not indicate, however, that consumers are well supplied with iron. Some of them are decidedly short of iron in their yards, as has been the case for some time past. Foundry and malleable iron were also very quiet.

(Dealers' average buying prices for gross tons.)

Bessemer billets (nominal).....	\$75.00
Open-hearth billets (nominal).....	75.00
Open-hearth sheet bars.....	85.00
Bessemer sheet bars (nominal).....	85.00
Forging billets.....	115.00-125.00
Wire rods.....	90.00
Rails.....	75.00-80.00

(Dealers' average buying prices for pound lots.)

Tank plates.....	\$8.00
Refined iron bars.....	4.75
Steel hoops.....	5.00-5.50
Cold-rolled strip steel.....	9.00-9.50
Sheets, No. 28 gauge.....	8.00-9.00
Galvanized sheets.....	10.00-11.00
Blue annealed sheets.....	8.00-8.50
Wire nails.....	4.00
Cut nails.....	4.00
Plain fence wire, base.....	3.75
Barb wire, galvanized.....	4.55
Railroad spikes.....	5.00-7.50

#### PIG-IRON.

Bessemer, Pittsburgh.....	\$52.50
No. 2 foundry.....	53.50
Basic, valley.....	48.50
Malleable.....	53.75
Basic, Philadelphia.....	53.75-60.75
No. 2 foundry, Northern.....	52.75-55.75
Low phosphorus.....	85.00
No. 2 foundry, Buffalo.....	52.00-56.00
No. 2 South, Cincinnati.....	47.90-52.90
Northern foundry, No. 2 Cleveland.....	54.30-55.30
Foundry, Chicago furnace.....	55.00
Malleable, Chicago furnace.....	55.00
No. 2 foundry, New York.....	52.70-55.70
No. 2 plain, New York.....	52.20-55.20

#### SCRAP-IRON AND STEEL.

Heavy melting steel.....	\$35.00-37.00
Bundled sheet.....	23.00-24.00
Re-rolled rails.....	38.00-39.00
Old-iron car wheels.....	31.00-32.00
Old-steel wheels.....	35.00-36.00
Stove plate.....	19.00-20.00
Steel car axles.....	45.00-46.00
Iron car axles.....	44.00-45.00
Low phosphorus.....	41.50-42.00
Heavy cast.....	27.00-28.00
No. 1 cast scrap.....	30.00-31.00
No. 1 railroad wrought.....	31.00-32.00
Cast borings.....	22.00-23.00
Machine-shop turnings.....	22.00-23.00
Railroad malleable.....	26.00-27.00

#### METALS STILL AFFECTED BY PRICE-FIXING.

**Government Price for Copper Is Reported at 25 Cents a Pound—New Trust Price of Lead Makes Buyers Suspicious—Spelter in Fair Demand—Tin Market Easy.**

New York, September 10.—[Special.]—A feeling of uncertainty and unrest still pervades the markets for metals, and with the Government at any moment expected to give out prices on copper, which naturally has a sympathetic effect upon other metals, there has been the fear that a buyer or seller might have advance information, hence buyers have been shy about making bids and sellers about offers. This unsatisfactory state of affairs will come to an end when the Government's decision is known, and a good business may then develop, irrespective of price.

It is reported in authentic sources that the Government price for copper has been fixed at 25 cents a pound, and a quantity has been sold to the Allies for urgent use at this figure. These reports have made sellers less disposed to offer copper, but consumers have not shown any buying interest, although some trading interests have appeared anxious to buy last quarter

metal, and have bid the market up to 25 cents without obtaining much copper. This has made producers increase their asking prices for all deliveries.

The new price of 10 cents a pound fixed by the American Smelting & Refining Co. on Thursday did not have any effect upon the market for lead, except to make buyers suspicious regarding the future of the market, and there was an absence of inquiry and orders. No test has come to date to indicate whether independent or dealers will shade the price. There is a pessimistic feeling relative to future deliveries, and offers have been made at 9½ cents for October, 9.12½ cents for November and 9 cents for December. The fact that, compared with the pre-war period, lead is proportionately higher than other metals appears to be the basis of short sales, if any have been made.

There was a fair inquiry for October, November and December spelter, although sellers were shy about committing themselves on offers. A limited amount could probably be bought for last quarter at 8.12½ cents. It is reported that the Italian Government has closed an order for nearly 1,000,000 pounds of spelter, and that shipment is to be made within the next few days from "an Atlantic port."

The whole spelter situation continues a wretched one, and producers are very discouraged, while the closing down of smelters continues. Meanwhile, should the Government or the Allies come into the market for any large supplies the output is being so curtailed that difficulty may be experienced when the time comes to get all the metal that they may require.

A fair business in tin is being done every day, and it is constantly noted that the orders and inquiries show an increasing interest in Banca, Chinese, No. 1, Australian tin, etc. The retail trade was very dull last week, and it is undoubtedly feeling the competition arising from the product of the American manufacturers. At the end of the war the exporters of tin may find that their business in Straits tin with many important houses has been practically lost.

The statistics of tin for the month of August was poor, the visible supply showing an increase for the month of only 2800 tons, and for the year 2311 tons. Deliveries into consumption were small, amounting to 3305 tons. The combined deliveries of London and Holland were 352 tons smaller than that month last year. For the eight months the decrease in deliveries amounted to 1110 tons, compared with the same time last year.

#### THE WEEK'S PRICES.

	Copper.			Lead.		
	Lake. (*)	Electrolytic. (*)		A. S. & R. C. (*)	Independent. (*)	Spelter. (*)
*Monday, Sept. 3.....	27.00-28.00	25.50-25.75		10.50 Nom.	10.25	8.05
Tuesday, Sept. 4.....	27.00-28.00	25.50-25.75		10.00 Nom.	10.00	8.05
Wednesday, Sept. 5.....	27.00-28.00	25.75-26.00		10.00 Nom.	10.00	8.05
Thursday, Sept. 6.....	27.00-28.00	26.00-26.50		10.00 Nom.	10.00	8.05
Friday, Sept. 7.....	27.00-28.00	26.00-26.50		10.00 Nom.	10.00	8.05
*Holiday.						

#### Brick and Tile Products Show Large Increase.

Large increases in the value of brick and tile made in the United States in 1916 are reported to the United States Geological Survey, Department of the Interior. The total output amounted to \$159,042,849, an increase of \$33,248,005, or more than 26 per cent. over the figures for 1915. The value of every variety of product classified by the Geological Survey except two was increased. Common brick, the product of greatest value, the output of which has been declining in recent years, showed a large increase in both quantity and value. There were 7,394,202,000 brick reported for 1916, valued at \$49,357,411, or \$6.68 per thousand, an increase in quantity of 543,103,000 brick and in value of \$7,212,119, or 17 per cent. Fire-brick, valued at \$30,806,129, increased \$11,966,198, or 64 per cent. Sewer pipe, which showed a large decrease in 1915, rallied in 1916, and showed a large increase. Its value in 1916 was \$13,577,006, an increase of \$2,317,657, or 21 per cent. Vitrified brick or block remained practically stationary, being valued at \$12,236,890, an increase of only \$5991 over 1915. The front brick industry showed a considerable gain, its output being valued at \$11,464,614, an increase of \$1,929,078, or 20 per cent. Drain tile and architectural terra-cotta also showed large increase over 1915. Tile (not drain) valued at \$6,475,464—consisting of roofing tile (\$914,240), floor tile (\$1,308,861), faience tile (\$814,077) and wall tile (\$2,000,055)—showed a gain of \$1,289,400, or 25 per cent.

Brick and tile products are classified naturally into

three divisions: (1) structural materials, (2) engineering and refractory products, and (3) miscellaneous wares. The first, structural materials, including building brick of all kinds, terra-cotta, fireproofing and tile (not drain) was valued at \$84,643,252 in 1916, an increase of \$14,234,136, or 20 per cent., over 1915; the second, engineering and refractory products, consisting of vitrified drain (used principally for paving), sewer pipe, stove lining and fire-brick, were valued at \$67,305,448, an increase of \$15,636,664, or 30 per cent. over 1915; the third, miscellaneous wares, consisting of such products as adobe, assay supplies, burnt clay ballast, chemical brick and tile, chimney pipes, tops, conduits, glass house pots and supplies, retorts, sewer block and wall coping, were valued at \$7,094,149, an increase of \$3,377,205, or 91 per cent., over 1915.

#### Knox County Copper Co.

Organization has been effected by the Knox County Copper Co. of Santa Anna, Tex., recently incorporated with \$50,000 capital. This company will develop 320 acres of leased land in Knox county, Texas, and claims to have found extensive deposits of high-grade ore. Its officers are: H. W. Turner, president; C. M. Pieratt, vice-president; S. J. Pieratt, secretary-treasurer.

The Melville Manufacturing Co., Cherryville, N. C. has increased capital from \$125,000 to \$200,000.

# RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

## \$25,000,000 FOR NEW EQUIPMENT.

### Huge Expenditures by the Southern Pacific System—Other Contracts.

Southern Pacific Railway has placed orders for the construction of 65 locomotives, 10 of them to be built at the company's shops. All these engines will cost a total of about \$2,500,000. The company has also built or is having built this year 1000 flat cars, 1000 automobile cars, 900 stock cars, 600 oil cars, 400 gondola cars, 300 box cars, 50 cabooses and 40 narrow-gauge flat cars, besides 2700 refrigerator cars for the Pacific Fruit Express, of which the railroad company is one-half owner. At the company's shops construction of 3240 freight cars, announced as in prospect some time ago, will soon begin. It is stated that the total of the company's expenditures for equipment this year will be about \$25,000,000, in order to meet the very large requirements of general traffic and also the demands resulting from the war as to the transportation of men and materials.

Seaboard Air Line is in the market for 500 flat cars of 50 tons capacity, and also for 250 stock cars.

Southern Railway, it is reported, will soon award contracts for the building of about 4000 cars.

Baltimore & Ohio Railroad has added 35 new steel passenger cars to its equipment. They have safety devices on all doors, so that fingers cannot be caught between the door and the jamb and, instead of aisle carpets, they have inlaid flooring. The drinking water facilities include special filters and individual cups.

The United States Government has ordered 500 convertible ballast cars from the American Car & Foundry Co., St. Louis, and 500 small push cars from the Pressed Steel Car Co., Pittsburgh. It is further reported that the Government contemplates ordering many more cars, perhaps over 10,000.

Gulf & Ship Island Railway has purchased 9 passenger cars.

Norfolk Southern Railroad is receiving 500 box cars and 250 gondola cars from the builders, orders having been placed some months ago, but deliveries were delayed on account of various causes arising out of the unusual industrial and labor conditions.

### Marshall & East Texas Road Not Sold.

The sale of the Marshall & East Texas Railroad, which was to have taken place under orders of the United States Court on September 4 at Marshall, Tex., was postponed indefinitely, according to a report from there, because no bidders appeared. The line is 92 miles long from Willsboro via Gilmer and Marshall to Elysian Fields, Tex., and Bryan Snyder of Marshall is the receiver. A. T. Perkins of St. Louis, Mo., is president, and Osee Goodwin of Dallas, Tex., is vice-president of the railway company.

### Shippers Urged to Efficiency.

Loss and Damage Bulletin No. 6, issued by the Pennsylvania Railroad, contains some excellent admonitions having a positive and important bearing universally upon the prosecution of the war. It says: "After production comes conservation. The President urged all farmers, merchants, manufacturers, etc., to produce more to help win out in the great world struggle. Response was immediate and effective. But now in the transportation of these products there is great waste because many shipments are not properly prepared. Millions of dollars' worth of merchandise is damaged and destroyed yearly because of weak and poorly made containers. It is time to stop this waste. Mr. Shipper, will you do your part by packing your goods securely and by using containers that are strong enough to withstand the ordinary shocks of handling?"

The bulletin also presents several illustrations show-

ing how barrels and crates break and cause loss of vegetables, how casks leak and lose their contents, how boxes break and cause loss of and damage to manufactured products, and how heavy iron parts, shipped in flimsy bagging, are lost through breaking of the bags. These are only a few object-lessons revealing the carelessness of many shippers which causes not only loss, but often serious delays.

### Record Earnings on B. & O.

The statement of the Baltimore & Ohio Railroad Co. for July shows the largest gross earnings of any month in the entire history of the company, exceeding May of this year by several hundreds of thousands of dollars, when the previous high record was made. The figures for July are as follows:

Operating revenue, \$11,920,443; increase, as compared with the same month of last year, \$1,766,530; total operating expenses, \$8,837,656; increase, \$1,770,793; net operating revenue, \$3,082,787; decrease, \$4263.

It is to be noted that since and including July 19 the earnings of the Toledo division (formerly the Cincinnati, Hamilton & Dayton Railroad) have been included in the Baltimore & Ohio statement, whereas previously, before the road was absorbed by the system, it was operated separately by the Baltimore & Ohio. Concerning this it is said that B. & O. earnings computed for July as they were previously, with the Toledo division omitted, would have shown a decrease in net of as much as \$182,000, but the excellent results accomplished on the absorbed line reduced this large decrease to the comparatively small figure \$4263. The operating expenses for July were also the heaviest for a single month. Coal cost increased so as to swell expenses for the month \$700,000.

The statement for the first seven months of the year shows operating revenue, \$73,090,791; increase as compared with the same period of last year, \$7,308,502; total operating expenses, \$55,561,382; increase, \$7,013,117; net operating revenue, \$17,529,409; increase, \$295,385.

### Improvements at Jackson, Tenn.

The Illinois Central Railroad Co. will build at Jackson, Tenn., a store and oilhouse with washrooms and offices which will cost complete about \$50,000, besides several other structures. This principal building will be built of brick, with slate roof. Most of it will be one story in height, viz., 37x175 feet, while the remainder, 37x72 feet, will be two stories high. The oilhouse part will have basement. All will be fireproof.

The next in importance will be an extension to the machine shop 48x70 feet, of frame construction and one story high. It will cost approximately \$4000. Then there will be a brick building for an enginemen's wash and locker-room, using the present roundhouse foreman's office, 16x50 feet. Cost will be about \$2000. Another structure is a reclamation shed 20x50 feet, and of frame, one story high, costing about \$1000. Next will be a flue rattler-house 12x30 feet 6 inches, of frame, one story high, costing \$700, and last, a tank repair shed 20x36 feet, and also of frame, one story high, costing \$500. Total approximate cost of the entire improvements, \$58,200.

The work will be done under the immediate supervision of F. B. Judd, engineer of buildings for the company, 1000 Central Station, Chicago, and under the general supervision of A. S. Baldwin, chief engineer, also at Chicago.

### Jacksonville to the Seashore.

St. Elmo W. Acosta, secretary of the Jacksonville & Seashore Electric Association, Jacksonville, Fla., writes concerning the plans of the organization in a letter to the MANUFACTURERS RECORD, thus:

"The people of Duval county recently voted for bonds to build a highway bridge across St. John's River to South Jacksonville, on which side of the river are our beaches. The purpose of the railroad in question is to operate over this bridge to the seashore. It is the intention of those behind the project now to have the citizens of this city subscribe the money necessary to build

and equip the road, the right of way to be given the people, the trees for the poles and the cross-ties to also be given and the grading to be done by the convicts of Duval county and the city of Jacksonville.

"It is then proposed to donate the road to the city to be operated by its municipal electric plant in the interest of the people of the county and city at a rate of 10 cents each way between Jacksonville and the beaches. I don't know whether it will come out as we have planned, but if it doesn't we will then try and have a bill passed in the next Legislature compelling the city to take the profits of its electric plant to build and equip the road for as many years as it will require the profits of the plant to do this."

The proposed electric railway from Jacksonville to the San Pablo and other beaches immediately east of Jacksonville would be 20 or 30 miles long. M. B. Jennings is president of the Electric Association, among others interested being Judge H. B. Phillips, W. R. Rannie, Telfair Stockton, P. J. Mundy, E. W. Waybright, F. O. Miller and Sam Marshall.

### Sale of a Small Railroad.

The Webbers Falls Railroad, running from Warner to Webbers Falls, Okla., 10½ miles, has, according to a report from Muskegee, Okla., been sold to the Muskegee Junk & Supply Co. for \$35,000, which will take up the track and dispose of it. J. H. Stolper of Muskegee is president of the line, which is said to have been losing money since the establishment of automobile competition consisted of a locomotive, a passenger car and a freight car, and it ran a train each way three times daily excepting on Sunday, when two trips each way were made. The road connected at Warner with the Midland Valley Railroad. It was built several years ago. Others besides Mr. Stolper directly interested in the operation of the line were O. L. Hayes, vice-president and general manager; H. L. Saunders, secretary and treasurer, and J. E. Goodwin, passenger and freight agent.

### B. & O. Apple Directory.

The commercial development department of the Baltimore & Ohio Railroad, W. H. Mansa, assistant to vice-president, in charge, has just issued its Apple Directory for 1917. This booklet contains a list of apple growers and shippers in Maryland, Virginia, West Virginia, Ohio and Illinois situated contiguous to the lines of the system. The names and addresses of all growers and shippers in these regions are given, together with the number of trees which each grower has in bearing. One grower in Illinois has more than 40,000 trees producing apples, another in Virginia has 30,000, one in West Virginia 27,000, and so on. There are many whose orchards range between 12,000 to 20,000 trees.

The directory also presents a list of receivers, brokers and wholesale dealers in apples in various towns and cities.

### Official Changes.

J. M. Herbert, hitherto first vice-president in charge of the St. Louis Southwestern Railway Co., has been elected president of the system, succeeding Edwin Gould, who was chairman of the board and also president. Mr. Gould, however, continues as chairman of the board, and W. T. Tyler is vice-president.

### Textile Notes.

One hundred knitting machines will be added by the Queen Knitting Mills of Statesville, N. C., and this new equipment has been purchased.

A 100x290-foot three-story addition, of brick construction, will be built by the Stehli Silks Corporation of High Point, N. C. It will be equipped with machinery to about double the company's capacity.

C. S. Groves, C. T. Morrison, J. M. Arnold and others, Hickory, N. C., have incorporated the Clairmont Hosiery Mills with \$6000 capital. This company acquires the Groves and Morrison hosiery knitting mill.

## Good Roads and Streets

### SOUTHERN HIGHWAY ACTIVITIES.

Details in regard to road and street undertakings and bond issues, briefly mentioned below, are given under the proper headings in our "Construction Department" and "New Securities," published elsewhere in this issue.

#### Bonds Voted.

Bartow, Fla.—Polk county will issue \$300,000 bonds for widening portion of Dixie Highway.

Elm Grove, W. Va.—City voted \$32,000 bonds to pave streets, etc.

Greenville, Tex.—Hunt county voted \$100,000 bonds for building roads.

#### Bonds to Be Voted.

Centerville, N. C.—Franklin county votes October 9 on \$20,000 bonds for road construction.

#### Contracts Awarded.

Alexandria, La.—Rapides parish awarded contract for building 4-mile military highway to cost \$100,000.

Anniston, Ala.—Government awarded contract for grading, street and road work at Camp McClellan; cost \$500,000.

Beaumont, Tex.—City awarded \$53,000 contract to resurface 5 miles of brick-paved streets with asphalt.

Carthage, Miss.—Leake county awarded contract for 10.78 miles of roads; grading and sand clay.

Kennett, Mo.—City awarded contract for street improvements; 15,508 square yards paving, 12,814 linear feet curbing and 3700 cubic yards grading, etc.

New Roads, La.—State awarded \$125,000 contract to build 32 miles of gravel highway.

Slidell, La.—City awarded \$10,000 contract for shelling streets.

Towson, Md.—Baltimore county awarded \$22,574 contract for constructing 1-mile concrete road 14 feet wide.

Yazoo City, Miss.—Yazoo county awarded contract for 7 miles of road grading.

#### Contracts to Be Awarded.

Atlanta, Ga.—Government will build 75-foot road from De Kalb county line to Camp Gordon; \$78,000 appropriated.

Carrollton, Ala.—Pickens county will improve 49 miles of roads.

Cumberland, Md.—City will pave and otherwise improve portion of Washington street; 2800 square yards.

Fayetteville, Ark.—Washington county will build 6 miles of graded road; cost \$10,000.

Houston, Tex.—Harris county will construct and resurface 236 miles of road.

Jackson, Ky.—Breathitt county will construct 3 miles of pike road; expenditure, \$200,000.

LaFayette Ga.—City will construct 2135 yards concrete sidewalks.

Oneonta, Ala.—Blount county will grade and drain 5.3 miles of road.

Paducah, Ky.—McCracken county will construct 5900 feet road; 1074 cubic yards earth excavation, 300 cubic yards gravel, 1175 cubic yards crushed limestone, 10,513 square yards road surface.

Paragould, Ark.—Greene county will build 11-mile road; cost \$60,000.

Salisbury, N. C.—Rowan county will build central highway through Rowan to west of Salisbury; \$20,000 available.

Spartanburg, S. C.—Spartanburg county will construct 8.8 miles of road.

Wedowee, Ala.—Randolph county will grade, drain and surface with top soil 3½ miles of road.

Winona, Miss.—Montgomery county will construct 2½ miles of road.

### Suggestion for an American Standard Road.

By D. T. PIERCE, Barber Asphalt Paving Co., Philadelphia, Pa.

The South's determination to build good roads, as manifested by liberal appropriations for that purpose, brings up the very important matter of road types.

It has been said that no single type of road is adapted to the requirements of every community and that it would be futile to attempt to design what might be termed an American standard road. In a sense this is true. We would not, for example, lay the highest type of city pavement on an isolated rural road used chiefly for horse traffic, nor would economy permit of the use of stone or macadam pavements for the heaviest traffic. But between these extremes are thousands of miles of roads designated as main or leading roads, and these, in practically all sections of the United States, are subject to like traffic conditions. They might well be of a thoroughly standardized type.

The trend is already in that direction. It has been given great impetus of late through the failure of many roads designed to withstand a large volume of motor traffic. Had volume of traffic been the only factor to contend with, perhaps a majority of these roads would have given prolonged service. But a new and far more destructive factor has developed in the form of increased weight of traffic, represented mainly by the motor truck. It was found that roads originally well built and fully capable of sustaining large volume of traffic were breaking down under the increasing weight of motor vehicles operating on solid tires.

In view of the situation outlined, consideration is now being given to a type of road which may be described as a combination of three more familiar types. It might also be described as a modification of the city street type now being used in Connecticut and other States.

The combination road consists of a Portland cement

concrete base and an asphaltic wearing surface. Thus construction calls for the stone of the macadam road, the cement of the concrete road and the asphalt of the bituminous road. In this way the disastrous consequences of employing materials for purposes to which they are not well adapted are practically eliminated.

When challenged as to the accuracy of the latter statements, engineers in favor of the general adoption of combination roads cite known facts concerning the separate or distinct types referred to.

The consensus of opinion is that macadam is uneconomical under heavy motor traffic owing to high cost of maintenance.

It has been positively determined that the failure of bituminous roads calculated to withstand a large volume of motor traffic has been due to the collapse of insufficient broken stone foundations.

It is equally well known that the failure of concrete roads has been largely due to the self-destructive properties of the material when exposed to extreme temperature changes and alternate saturation and drying.

It is not asserted that these roads have failed under all conditions or wherever built. But it is nevertheless a fact that totally unexpected failures have taken place to a degree warranting abandonment of the types where heavy-traffic roads are to be newly constructed from the foundation up. Experience has shown that there is no better substitute than the combination road where moderate initial cost, low maintenance and satisfactory service are sought. The reasons given are as follows:

In a sense a road is merely a bridge designed to carry traffic over the less stable material called the sub-base. When the latter gives way the road proper is certain to follow. When broken stone is used for the road base the units are too small to bridge depressions in the sub-base. But when the base consists of Portland cement concrete the sub-base is spanned by slabs. Should the sub-base settle over a small area, the concrete will bridge it. Furthermore, concrete in the shape of a single slab or a series of slabs will transmit stresses, which a broken-stone base consisting of detached units cannot do. For the reasons stated the combination road is given a concrete base. A concrete base not only performs the functions described, but presents a hard and even surface upon which to lay the wearing surface. Concrete curbs are cast with the base to keep the wearing surface from spreading or breaking at sides of the road. The wearing surface may be repaired or entirely renewed without disturbing the concrete base. If a road will be subjected to extremely heavy traffic, the thickness of the base may be increased without departing from a standard method of construction. Concrete bases are seldom less than four inches thick or more than six inches. In the opinion of many engineers, five inches should be the minimum. In view of increased weight of traffic, others would prescribe six inches for all important country highways.

Upon the indestructible concrete base is laid an asphaltic concrete wearing surface. Asphaltic concrete

### SOUTHERN ROADS CONSTRUCTED OF ASPHALTIC CONCRETE ON CONCRETE BASE.



MYERS PARK, CHARLOTTE, N. C.



ROSSVILLE BOULEVARD CHATTANOOGA, TENN.

is a less dense mixture than the sheet asphalt used in cities. It consists of graded material—stone and sand—bound with asphalt. Where the mineral aggregate is of good quality, properly proportioned and bound with a thoroughly seasoned natural asphalt, the surface should endure for many years. Improper specifications, poor material and overburning of the asphalt have all contributed to the failure of bituminous roads, but the greatest menace under modern conditions is a weak base.

Asphaltic concrete provides a mudless, dustless surface suited to all types of traffic. The slightly yielding quality of the surface is an important advantage appreciated by users of horses and automobiles alike. Of no less importance is the fact that a two-inch wearing surface of asphaltic concrete protects the concrete base from destructive changes in temperature and moisture volume. It explains why concrete used as a base for city streets and country roads has not buckled, heaved or disintegrated, notwithstanding the fact that leaner or less dense mixtures are used than in the case of roads constructed of concrete throughout. Any experienced contractor can lay a good concrete base.

Thus the combination road, from the viewpoint of all concerned, appears to be a sound and safe proposition. Fortunately, its substitution for other types would not involve discarding any of the materials now used for macadam, concrete or bituminous roads. They are merely combined in a way to permit each to fulfill the purpose to which it is best adapted and with some of the complicated processes attending the construction of the separate types greatly simplified.

### Texas' Highway Department Organized for Efficient Work.

Austin, Tex., September 8.—[Special.]—A. L. Luedke, engineering economist attached to the United States office of public roads and rural engineering, was recently loaned to the new Texas State Highway Department to study and recommend plans for its organization and operation that would make for the greatest efficiency. The report which Mr. Luedke has just made contains the following outlined organization which was followed by the State Highway Commission:

"The department is to consist of two bureaus: a bureau of engineering, of which George A. Duren, the State highway engineer, is to be the head, and a bureau of registration, records and accounts, of which D. E. Colp, secretary, is to be the head.

"The bureau of engineering is further divided into division of roads, division of bridges and division of tests. The division of roads will handle the road construction and maintenance problems. The division of bridges will handle the designing and construction of all bridges. The division of tests will handle the testing of all materials entering into road or bridge construction. The central engineering office will be in charge of an office engineer, who will handle also the assignment of surveyors and draftsmen and the filing and recording of house data with reference to engineering work.

"For purposes of inspection of construction, the State is to be divided into six divisions, with a division engineer in charge of each, who will be assisted by assistant engineers, and such clerical help as may be necessary. The resident engineers will be in charge of the various projects in each division.

"The functions of resident engineer, or the engineer in charge of project under division engineer, may be assigned to the county engineer when mutually agreeable to the 'Commissioners' Court and to the State Highway Department, as long as the county engineer reports to and is amenable to the State Highway Department. The county engineer will prepare county map and make location surveys, plans and profiles, estimates of costs, etc., of proposed work, the cost of which shall be paid by the county, and his functions may be assigned to State Highway Engineering Department, first, for making county maps, to the reconnoitering engineer, and second to the locating engineer may be assigned the preliminary surveys, maps, profiles, estimates of costs, etc., in any case where mutually satisfactory to the County Commissioners' Court and to the State Highway Commission, in which case such engineering expense shall be paid for by the county out of funds due the county from the returns of the motor registration fees.

"The bureau of registrations, records and accounts is

divided into two divisions: the division of records and accounts, in charge of the chief clerk, and the division of registration of motor vehicles, of which the registration clerk is the head.

"The division of records and accounts will handle all clerical work, purchases, auditing, bookkeeping and filing.

"In the division of registration, the registration clerk is assisted by the rate clerk and checkers, the cashier, arrangers, numberers, typers, certificate clerks and shipping clerk.

"The organization as now perfected is not complete as outlined in the organization plans, but as the construction program is executed additional men will be placed according to the outlines as may be required by the amount of work under construction.

"The bureau of engineering as outlined is planning on a construction program involving the expenditure of approximately \$9,000,000 for a period of five years, of which the Federal Government will supply \$4,515,750, and a complete cost system for detail costs on this work has been established in this department under an efficient cost clerk.

"The bureau of registration is at present making the collections and awarding number plates and seals of motor vehicle registration for the six months ending December 30, 1917. It is estimated that approximately 200,000 motor vehicles will be registered by this department. As organized at present, the department is handling about 3500 registrations daily."

### Government Report on Cotton Ginning.

The Department of Commerce reports the number of bales of cotton ginned from the growth of 1917 prior to September 1, 1917, with comparative statistics to the corresponding date in 1916 and 1915, as follows:

State.	Counting Round as Half Bales.		
	1917.	1916.	1915.
Alabama.....	18,405	22,375	28,925
Arkansas.....	134	15,450	370
California.....	103	443	50
Florida.....	2,111	2,831	4,701
Georgia.....	146,594	212,787	133,408
Louisiana.....	15,375	29,762	5,858
Mississippi.....	5,749	10,260	4,619
North Carolina.....	72	280	354
Oklahoma.....	86	7,552	8
South Carolina.....	17,888	26,782	4,305
Tennessee.....	.....	139	2
Texas.....	367,796	521,467	271,328
All Other States.....	.....	.....	6
United States.....	655,513	850,988	463,883

The statistics in this report include 22,724 round bales for 1917, 31,335 for 1916, and 8947 for 1915. The number of sea-island bales included is 2890 for 1917, 4631 for 1916, and 2097 for 1915. The distribution of sea-island for 1917 by States is: Florida, 1708; Georgia, 1181, and South Carolina, 1.

The statistics for this report for 1917 are subject to slight corrections when checked against the individual returns of the ginners being transmitted by mail.

Cotton consumed during the month of July, 1917, amounted to 541,496 bales. Cotton on hand in consuming establishments on July 31 was 1,498,939 bales, and in public storage and at compresses 888,117 bales. The number of active consuming cotton spindles for the month was 33,396,635. The total imports for the month of July, 1917, were 10,290 bales, and the exports of domestic cotton, including linters, were 271,717 bales.

The world's production of commercial cotton, exclusive of linters, grown in 1916, as compiled from published reports, documents and correspondence, was approximately 18,365,000 bales of 500 pounds net, while the consumption of cotton (exclusive of linters in the United States) for the year ending July 31, 1917, was approximately 20,180,000 bales of 500 pounds net. The total number of producing cotton spindles, both active and idle, is about 150,000,000.

### Corn Crop of Louisiana Sugar Belt May Be Largely Kept at Home.

New Orleans, La., September 8.—[Special.]—A \$52,000,000 corn crop is being harvested now in Louisiana. Two-thirds of this great crop is grown in sugar Louisiana, and thus has added to the sugar wealth of the sugar parishes of Louisiana a total of something like \$28,164,000.

The drought of early summer retarded the corn crop considerably, but extremely favorable weather in July and August made up for the previous backwardness in the growth, so that now the production promises to be

greater than normal, though less than if favorable weather had ruled throughout the entire corn-growing season.

The market now as the corn harvest has started is dull, due to the fact that the Western oat crop is selling below the price of corn and molasses feeds. The greater portion of the corn production in South Louisiana on the sugar plantations will be kept on the ground for stock feed. There is a strong movement to keep the entire Louisiana corn crop at home on the farms that produced it. The farmers have been warned to keep their corn rather than have to buy their own corn back in the shape of feeds for their stock at very much higher prices than the cost of producing it on their plantations. At New Iberia and at various other sugar-beet points elevators are being built, and on several plantations feed mills have been erected to manufacture feed from corn, alfalfa and blackstrap molasses for the feeding of the plantation stock with the same kind of stock feed that the planters have been paying fabulous prices for heretofore.

A new corn-shelling plant and elevator electrically driven throughout is now in successful operation at Amesville, La. It is owned by Geo. B. Matthews & Sons. Besides shelling the corn, it also makes stock feed from corn shucks. Sugar plantations are large corn producers, and necessarily producers of blackstrap molasses. They therefore have the two essential ingredients of a most nutritious and flesh-building stock food, and though it has taken them some time to realize the strength of their position for the manufacture of feeds, they are now in the midst of a great awakening along these lines.

### Molasses Distilleries to Make Commercial Alcohol.

New Orleans, La., September 7.—[Special.]—A \$5,000,000 blackstrap molasses crop will be made in Louisiana this year. The distilleries, which have been making whiskey from blackstrap molasses for several years, will no longer make whiskey, but will make commercial alcohol therefrom, which the allied enemies of Germany have used very largely to advantage.

The manufacture of alcohol here has been on a large scale. Six large alcohol distilleries are in operation here now, and another plant has just been completed at Westwego.

Blackstrap molasses, obtainable now only in very small quantities, is selling at 21 cents and more a gallon, and the feed companies of the Middle Western States are anxious to buy it.

The increased manufacture of white sugar in the State will not interfere with the production of blackstrap molasses, as the high prices now obtained for it will serve to greatly increase the output here.

The value of the distilling plants has been multiplied manifold since the outbreak of the war. The stock of one of them, with par value of \$100, is now not obtainable at \$1000 a share. Apparently the distilleries at this city have enough contracts for war alcohol to keep them busy for some time yet.

### A Book for Exporters.

The Exporters' Encyclopedia, which has just been issued for 1917-18, the thirteenth edition, will be of especial value to American manufacturers who are having their first experience in handling export inquiries and orders. It gives an answer to every question arising in making export shipments from the very packing of the goods to their arrival at their destination. All that a shipper needs to know is the port or the country to which a shipment is to be made, for the information contained in the book is arranged separately for each country, giving the various regulations that apply to packing, documents, etc., so that there need be no errors or confusion. Every practical shipping route from the United States is shown for every country, and this information includes frequency of sailings, loading piers and other necessary data. Fac-similes of consular papers required, with their translations into English, are shown, together with the costs of certification, etc. A new feature appearing in this year's issue is a series of 64 maps of different countries. All information in the book is kept up to date by monthly correction notes furnished in the Exporters' Review, a magazine for concerns engaged in foreign trade. The Encyclopedia is published by the Exporters' Encyclopedia Co., 90 Broad street, New York. Price \$7.50.

# Construction Department

## IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

### DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

### BRIDGES, CULVERTS, VIADUCTS

Ark., Index.—Red River Bridge Dist. Commissioners, Louis Josephs, Secy., Texarkana, Ark., will build bridge (lately noted) over Red River; superstructure metal work provided by district, but substructure to be constructed, superstructure erected and concrete trestles and embankments built; bridge with trestle and embankment 1830 ft. long, providing paved roadway 18 ft. wide on concrete floor; 4 spans 200 ft. long, 2 spans 100 ft. long and 500 ft. reinforced concrete trestle; balance embankment; vertical lift span providing for navigation; will issue \$250,000 bonds; plans and specifications at office Red River Bridge Dist., Texarkana, Ark., and Harrington, Howard & Ash, Const. Engrs., Kansas City, Mo.; bids opened Oct. 4. (See Machinery Wanted—Bridge Construction.)

D. C., Washington.—District Commissioners have plans by George Oakley Totten, 808 17th St., Washington, for proposed Calvert Street bridge across Rock Creek.

Fla., St. Petersburg.—Tampa-St. Petersburg Electric Ry. Co., Geo. S. Gandy, Pres., care of Wayne Trust Co., Philadelphia, Pa., will construct 6-mi. bridge and trestle across old Tampa Bay; cost \$1,000,000.

Ga., Macon.—Central of Georgia Ry., C. K. Lawrence, Chief Engr., Savannah, will construct concrete bridge on Second St.

Ga., Woodbine.—Camden County Comms. Roads and Revenue, I. F. Arnow, Chrmn., St. Marys, Ga., asks bids until October 2 to build steel bascule draw bridge across Satilla River, at Woodbine Ferry; 80 ft. clear opening; cypress timber approaches; cypress piling supports; cost not to exceed \$30,000; Wm. M. Torrance, Const. Engr., 123 Bull St., Savannah, Ga. (See Machinery Wanted—Bridge Construction.)

Ky., Paducah.—McCracken County, Gus G. Singleton, Clerk County Court, will build bridge over Massac Creek at High Point on Paducah and Metropolis (Noble) Rd.; concrete structure and four 80-ft. steel spans; bids opened Sept. 18; separate bids for substructure and superstructure; plans and specifications at office engineer, Courthouse, Paducah, and Dept. Public Roads, Frankfort, Ky. (See Machinery Wanted—Bridge Construction.)

Md., Cumberland.—Board of Directors for Allegany County, J. T. Edwards, Chrmn., will construct 2 steel highway bridges, 80 ft. "C" with 12-ft. roadway, over Town Creek, about 8 mi. from Oldtown, Md.; all superstructure in accordance with Theodore Cooper's latest specifications for steel highway bridges and substructure of 1-2-4 American Portland cement concrete; bids opened Sept. 20; bids on yardage basis; alternate bids for either steel or reinforced concrete may be submitted; plans at office D. P. Le Fevre, Rd. Engr., Cumberland. (See Machinery Wanted—Bridge Construction.)

Miss., Winona.—Montgomery County Supervisors will construct 30 concrete culverts and bridges, sizes 4x4 to 30-ft. bridges; Engr., Gus E. Hauser, Columbus, Miss. (See Machinery Wanted—Bridges and Culverts.)

Okla., Idabel.—Little River Bridge Co. Incptd. with \$10,000 capital by R. M. Dewitt, J. M. Craig and D. C. Flenniken.

W. Va., Martinsburg.—Berkeley County let contract to Ferris Bridge Co., Charleston, W. Va., to construct 80-ft. reinforced concrete arch bridge over Light Ford; cost \$5700; P. Parker Davis, Bridge Engr., Morgantown, W. Va. (Lately noted.)

### CANNING AND PACKING PLANTS

Fla., Moore Haven.—Moore Haven Cannery will be established and operated under management of Imperial Cannery, Chicago; machinery purchased.

N. C., Raleigh.—State Packing Co., 1011 Commercial National Bank Bldg., advises Manufacturers Record: Organized with J. G. Ball, Pres.; J. A. Park, V.-P.; Alan T. Bowler, Secy.-Treas.; plans are indefinite. (In August, noted organized, capital \$100,000, to erect meat-killing and packing plant.)

Tex., Dallas.—Geo. A. Hormel & Co., Austin, Minn., acquired site 90x100 ft. and will build distributing plant; cost \$30,000.

### CLAYWORKING PLANTS

Tenn., Chattanooga.—Brick.—New Clitico Brick Co. Incptd. with \$25,000 capital by E. H. Cairnes, D. S. Zachary, E. B. Shadden, John H. Cantrell and A. C. Earnest; reorganization of Clitico Brick Co.

### COAL MINES AND COKE OVENS

Ark., Hartford.—Roughley Coal Co. Incptd. with A. Roughley, Pres.; John White, V.-P.; W. E. West, Secy.-Treas.

Ark., Coal Hill.—Superior Coal Co. Incptd. with \$6000; J. L. Post, Pres.; Chas. Schmidt, V.-P.; R. A. Schmidt, Secy.-Treas.

Ky., Denver.—Lick Fork Coal Co. Incptd. with \$10,000 capital by G. W. Glinther, H. M. Vredenburg and L. J. Corbly.

Ky., Hazard.—Campbell Coal Co. Incptd. with \$5000 capital by J. C. Campbell, G. E. Campbell and Polly Campbell.

Ky., Louisville.—Consumers Fuel & Supplies Co. organized with \$300,000 capital by Walter S. Adams, N. C. Bowling, Sam C. Dalrymple and Elinor Morris; contemplates purchase of coal mine in Eastern Kentucky coal fields and another in Western Kentucky district; also maintain emergency coal yards.

Ky., Lebanon Junction.—Rock Castle Coal Co., main office, Louisville, Ky., Incptd. with \$15,000 capital by Henry Miller and J. A. Records, Lebanon Junction; J. B. Armstrong, J. K. Brooks, Louisville, and E. W. Quilan, Livingston, Ky.

Ky., Pikeville.—Coal Run Mining Co. Incptd. with \$9000 capital by H. H. Funk, C. E. Steele and Stoney Amick.

Ky., Pineville.—Gas Coal Production Co. Incptd. with \$25,000 capital by W. H. Thomas, Jr., L. E. Fischer and E. W. Hilgard.

Ky., Redwine.—Redwine Channel Coal Co. Incptd. by Drew Evans, W. B. Townsend, Jr., and Mrs. Drew Evans.

Ky., Roxana.—John A. Webb and others interested to develop leased coal lands on Smoot Creek.

Ky., Indian Bottom.—Blackey Coal Corp., capital \$30,000, organized by Geo. S. Clarke, J. D. Blair, S. P. Jenkins and others; develop plant for 500 tons daily capacity.

Ky., Sergeant.—J. W. Reedy and others will lease and develop George Tubbs coal lands on Louisville & Nashville R. R.

Tenn., Chattanooga.—"Big 4" Coal Co. Incptd. with \$50,000 capital by C. E. Dantzier, E. C. Dantzier, J. W. Hornsby, F. L. Cox and Frank L. Hearndon.

Tenn., Knoxville.—Crawford Coal Corporation Incptd. with \$150,000 capital by Jas. L. Getaz, Saml. E. Young, W. J. Donaldson and others.

Tenn., Knoxville.—Liberty Coal Mining Co. Incptd. with \$10,000 capital by Geo. P. Gaut, Howard Van Gilder, R. H. Ramsey and others.

Tenn., Knoxville.—Mountain Coal Co. Incptd. with \$25,000 capital by Sam. P. Starks, Horace M. Carr, Norman B. Norrell and others; develop coal properties in Scott County.

Va., Tazewell.—Great Britain Coal Corp. Incptd. with \$5000 capital; H. G. McCall, Pres.; H. P. Brittain, Secy.-Treas.

W. Va., Abbot.—Hendricks Coal Co. Incptd. with \$5000 capital by Geo. E. Davis, J. E. Poling, both of Hendricks, W. Va.; E. P. Brennan, Elkins, W. Va.; A. C. Minear and H. F. Colebank, Parsons, W. Va.

W. Va., Buckhannon.—Mayflower Coal Co. Incptd. with \$25,000 capital by G. E. Drummond, E. H. Kelley, E. B. Alkire, E. D. Rose and others.

W. Va., Charleston.—White Flame Coal Co. Incptd. with \$10,000 capital by W. G. Morris, P. W. Bentley, W. E. Davis and others.

W. Va., Mt. Claire.—Mt. Claire Colliery Co. Incptd. with \$150,000 capital by John M. Callahan, Mt. Claire; Paul P. Cannon, W. C. Davecom, both of Cumberland, Md.; J. Fred Nell and Philip P. Steptoe of Clarksburg, W. Va.; operate mines in Grant Dist.

W. Va., Fairmont.—Wyatt-Bingamon Coal Co. Incptd. with \$120,000 capital by Edw. F. Holbert, W. M. Chambers, O. E. Bell, M. Robt. Furman and E. M. Taylor; operate mines on Bingamon Creek.

W. Va., Haywood.—Adamston Fuel Co., Adamston, W. Va., organized; W. A. Gaylord, Pres.; C. J. Sams, V.-P.; G. L. Petrey, Secy., Treas. and Mgr.; develop 22 troy, Secy., Treas. and Mgr.; (In Aug., noted Incptd., capital \$10,000.) develop 22 acres; daily capacity 150 tons.

W. Va., Lory.—Lory Coal & Coke Co. Incptd. with \$50,000 capital by J. Krummel, W. A. Markell, each of Charleston, W. Va., G. J.

Cottrell, Fort Defiance, W. Va.; S. M. Stone, Whitaker, W. Va., and B. F. Backus, Carbondale, W. Va.

W. Va., Sevy.—Greenbrier Colliery Co. organized; W. S. Wood, Pres.-Treas., Charleston, W. Va.; W. H. Baker, Jr., V.-P., Huntington, W. Va.; J. Wade Bell, Secy.-Mgr., Sevy; Philip Konrad, Constr. Engr., Kanawha Falls, W. Va.; develop 2000 acres; daily output 1000 tons coal; invest \$40,000 for electric-power plant, motors, etc.; J. Wade Bell and associates form this company to develop lands they were lately noted as buying. (See Machinery Wanted—Mining Equipment; Electrical Machinery.)

W. Va., Hartland.—Elk Ridge Coal Mining Co. Incptd. with \$15,000 capital by Wm. T. Lively, Edward Hart, D. M. Mohler, D. W. Dunbar, each of Charleston, W. Va., and Porter E. Hyer, Clay, W. Va.; operate mines in Clay county.

### CONCRETE AND CEMENT PLANTS

Ky., Pineville.—Portland Cement.—Detroit-Elk Coal Co. is understood to propose building \$1,000,000 Portland cement plant; decision in charge of C. C. Winters of Mancourt-Winters Coal Co., Dime Bank Bldg., Detroit, Mich., who advises Manufacturers Record: No information now available; proposition not sufficiently developed. (Lately reported to build.)

### COTTON COMPRESSES AND GINS

La., Ruston.—Loeb Compress Co. Incptd. with \$50,000 capital by Henry Loeb, Shreveport, La., and others.

Okla., Elk City.—Williams & Miller Gin Co. Incptd. with \$300,000 capital by Sam Williams, A. O. Miller and Amos Williams.

Okla., Oneta.—Oneta Ginning Co. Incptd. with \$10,000 capital by C. C. Wilson, W. D. Kelley and J. L. Davis.

S. C., Dovesville.—Dovesville Gin Co. organized; R. A. McLendon, Pres.; C. T. De Lorme, V.-P.; W. W. Baltzgar, Secy.; W. S. Dove, Mgr.; erect 20x52-ft. ginnery and 25x30-ft. boiler-room; let contract to G. J. Bryant; has let machinery contract, cost \$5000; daily capacity 35 bales. (Lately noted Incptd., capital \$5000.)

Tenn., Ripley.—Farmers' Co-operative Gin Co. Incptd. with \$3500 capital by K. H. Griffin, C. N. Wilkes, K. B. Lee and others.

Tex., Trenton.—J. W. Wilson Gin Co. Incptd. with \$5000 capital stock by S. W. Brown, J. B. Norman, J. H. Cooper and others.

### DRAINAGE SYSTEMS

Miss., Stewart.—Black Creek Drainage District, Montgomery County, is having survey made for drainage construction; will let contract; Guy E. Hauser, Engr., Columbus, Miss.

N. C., Winston-Salem.—Forsyth County Drainage Dist. No. 1, N. L. Cranford, Chrmn. Drainage Comms., let contract to Sigmon, Reinhardt & Rutledge, Stanley, N. C., to construct drainage system, to include 21 mi. dredge ditches containing 800,000 cu. yds.; Will D. Alexander, Engr., Charlotte. Contractors further advise Manufacturers Record: 2 streams; machinery includes 2 Marion steam dredges; drain 2300 acres in Forsyth and Davie Counties for farming; estimated cost \$60,000. (Lately noted.)

### ELECTRIC PLANTS

Fla., Clermont.—L. H. Zinsser will build electric-light plant.

Ky., Fleming.—Cornettsville Coal Co. contemplates constructing power-plant; J. W. Montgomery, Pres.

La., Westwego.—Leo A. Marrero, Gretna, La., states organization of company to install electric-light plant is not completed; bonds proposed. (Lately noted.)

Md., Baltimore.—Consolidated Gas Electric Light & Power Co. (through Consolidated Power Co.) Lexington Street Bldg., has plans and specifications for expending \$5,513,345 under financial plan recently announced; principal additions will be power units to electric plant at Westport; supply great amount of electricity at Canton, Colgate Creek, Bear Creek and Sparrows Point, in Baltimore industrial district. (Lately noted planning increase of facilities and to

organize Consolidated Power Co. in connection with issuance \$5,000,000 gold notes; double electrical facilities to meet increasing demands; construct plant generating 50,000 electrical H. P.; present plant generates 55,000 K. W. and 45,000 additional K. W. now demanded; install this new electric plant within next 18 months; mortgage issue of \$15,000,000 to cover new generating plant, etc.)

Miss. Scooba.—Town will establish electric-lighting system; build line to Scooba sanitarium. Address Mayor Boyd.

Mo. Parkville.—Park College will build power-plant; receiving bids; Smith, Rea & Lovitt, Architects, Finance Bldg., Kansas City, Mo.

Okl. Duncan.—City postponed election on \$15,000 bonds for electric-light plant. Address The Mayor. (Lately noted to vote Aug. 21.)

Okl. Jennings.—Jennings Ice & Light Co. inceptd. with \$30,000 capital by C. H. McElroy, R. A. McFarland, both of Jennings, and Ben Bailey, Okmulgee, Okla.

Okl. Quapaw.—City plans to install electric-light system. Address The Mayor.

Okl. Tahlequah.—Tahlequah Light & Power Co., E. S. Billings, Ch. Engr., will improve power plant.

Tenn. Lebanon.—City Commrs. ordered vote Oct. 6 on \$25,000 bonds to acquire Lebanon Light & Power Co.'s light, water and power plant.

Tex. Big Lake.—Henry Japson is reported to construct electric-light plant, etc. (See Water-works.)

Va. Roanoke.—Roanoke Railway & Electric Co. has ordered and will install 2 additional turbines with capacity of 4000 and 800 K. W.

### FERTILIZER FACTORIES

Va. Richmond.—Surry Lime-Mat'l Corp. inceptd. with \$50,000 capital; G. A. Dunlop, Pres., Richmond; Jas. E. Cuthbert, V.P.; B. B. Willcox, Secy.; both of Petersburg, Va.

### FLOUR, FEED AND MEAL MILLS

Ala. Fort Deposit.—C. M. Davis and Jos. Norwood, Fort Deposit, and J. C. Wood, Mt. Willing, Ala., will build feed mill; 2 stories; capacity 40 tons; cost \$50,000.

Ala. Headland.—Wiregrass Milling Co. organized; J. J. Espy, Pres.; W. M. Hardwick, V.P.; R. M. Lingo, Secy.-Mgr.; has buildings; plant equipped; daily capacity 1000 gals. peanut oil, 15 tons velvet-bean meal, 10 tons mixed feed and 500 bus. cornmeal. (Lately noted inceptd., capital \$700.)

Ala. Opelika.—Piedmont Fertilizer Co. will build feed mill; 40-ton daily capacity; install 100 H. P. engine to grind all kinds of feed stuff.

Okl. Carnegie.—Carnegie Milling Co. inceptd. with \$15,000 capital by E. T. Schooling, R. N. Schooling and A. P. Creek.

### FOUNDRY AND MACHINE PLANTS

Ala. Birmingham.—Foundry.—Camp McClellan Foundry Co. inceptd. with \$2500 capital; Percy W. Brower, Pres.; Geo. A. Blinn, Jr., V.P.; C. E. Mason, Secy.-Treas.

Ky. Harlan.—Machine Shop.—Harlan Machine & Electrical Works, John W. Carroll interested, will install iron-working machinery for general repair work. (Lately noted to be installed by Mr. Carroll; has building.)

Ky. Paducah.—Textile Machines.—Southern Textile Machine Co. increased capital from \$150,000 to \$155,000.

Okl. Enid.—Grain Thresher and Separator. Davis Mfg. Co., 497-11 S. Grand St., will install plant including machine shop and foundry; manufacture rotary grain thresher and separator; cost of plant \$50,000; main building 3 stories, brick, 50x110 ft.; built and in course of erection; has ordered machinery; daily capacity 2 to 6 machines; W. R. Lence, Pres.; John Shaeffer, 1st V.P.; Monroe Davis, 2d V.P.; Geo. D. Wilson, Secy.; A. L. West, Mgr.; G. E. Richmond, Master Mech. and Designing Engr. (See Machinery Wanted—Wood and Metals.)

Tenn. Nashville.—Bollers, etc.—Hillman Development Co. inceptd. with \$50,000 capital by R. M. Dudley, W. A. Griswold, W. A. Byrn, T. A. Killman and A. E. Potter.

Tex. Burkburnett.—Machine Shop.—Petrolia Machine Shop Co. increased capital from \$15,500 to \$25,000.

### GAS AND OIL ENTERPRISES

Ky. Hopkinsville.—Oil Refinery.—International Oil & Refining Co. inceptd. by Hugh West, E. E. Bennett and L. G. Williams.

Ky. Lexington.—Lexington Oil Corp. inceptd. with \$100,000 capital by E. Bryant Crump, Lexington; C. A. Bromley, Louisville; C. J. Sipple and E. W. Bruner, London, Ky.

Ky. Lexington.—Lexington Oil Corporation inceptd. with \$100,000 capital by Bryant Crump, C. J. Sipple and E. W. Bruner.

Ky. Lexington.—Grassy Creek Oil Co. inceptd. with \$35,000 capital; S. S. Yantis, Pres.; other incorporators are: F. G. Stills and P. G. Powell, Lexington; John W. Menzies, Covington, Ky.; Oscar Vest, Carrollton, Ky., and others.

Ky. Williamstown.—Martin Oil & Gas Co. inceptd. with \$60,000 capital by R. H. Elliston, S. M. Billiter and E. D. Webster.

Mo. Kansas City.—T. M. W. Oil Co. inceptd. with \$12,000 capital by R. S. Thomson, C. A. Metsker and Hayes Walker.

Mo. Kansas City.—Lampe Oil & Gas Co. inceptd. with \$50,000 capital by J. H. and Theodore H. Lampe, and W. B. Storts.

Mo. St. Louis.—Intermountain Petroleum Co. inceptd. with \$25,000 capital by Chas. Chadwick, W. P. Klein, A. D. Archer and L. B. Remine.

N. C. Burlington.—Gas.—Burlington Gas Co. inceptd. with \$100,000 capital by J. B. Lydecker, S. E. Moore and I. C. Moore.

Okl. Enid.—Exantex Oil & Gas Co. inceptd. with \$50,000 capital by U. C. Canfield, Enid; W. F. Hopper, Covington, Okla.; C. M. Bellaire, Enid.

Okl. Enid.—Oil Refinery.—Oil State Refining Co. (lately noted organized with \$250,000 capital to build refinery, etc.) has interest in 18-in. 6-in. pipe line; probably build pumping station with capacity 10,000 bbls.; refinery to have daily capacity 2500 bbls. oil. (See Machinery Wanted—Oil Refinery.)

Okl. Enid.—Pipe Line.—Enid Oil & Pipe Line Co., H. H. Champlin, Enid, interested, capital stock \$300,000, organized to build 18 in. 4-in. pipe line from oil fields east of Enid. This information supplied by H. E. Alton, Pres., Enid Chamber of Commerce, was lately noted interested in proposed pipe line. (See Machinery Wanted—Pipe; Pump.)

Okl. Kingfisher.—Kingfisher Farmers Oil Co. inceptd. with \$50,000 capital by Albert H. Clausen, Kingfisher, and Dick Groenewold, Kici, Okla.

Okl. Okmulgee.—White-French Oil Co. inceptd. with \$25,000 capital by B. F. White, H. S. Dunn and H. B. Gutches, all of Ada, Okla.

Okl. Nowata.—Tejon Oil & Gas Co. inceptd. with \$400,000 capital by S. A. James, Nowata; J. F. Son, Ardmore; J. H. Stark, Colorado Springs, Col.

Okl. Oklahoma City.—Orient Holding Co. inceptd. with \$300 capital by John Sutton, Fletcher, Okla., and others.

Okl. Oklahoma City.—National Products & Salvage Co. inceptd. with \$25,000 capital by W. M. Scannell, Wm. H. Laux and Joe Scannell.

Okl. Oklahoma City.—Dacotah Oil Co. inceptd. with \$25,000 capital by James Ryan, Claremore; H. A. Muller, Harold E. Judge, Sioux Falls, S. D.

Okl. Oklahoma City.—Connolly Oil & Gas Co. inceptd. with \$25,000 capital by J. R. Marker, J. W. Riley and Wm. Connolly.

Okl. Oklahoma City.—Friendly Oil & Gas Co. inceptd. with \$75,000 capital by J. W. Moore, A. Wiseman and R. L. Davis.

Okl. Oklahoma City.—Blue Bell Petroleum Co. inceptd. with \$100,000 capital by D. A. Mayer, T. H. Roberts and W. J. Lanyon.

Okl. Okmulgee.—Kurtz-Slaton Oil & Gas Co. inceptd. with \$50,000 capital by H. H. Lunsford and M. J. Newland, Okmulgee, and W. E. Masters, Ardmore.

Okl. Pawhuska.—Oil Refinery.—Osage Mutual Refining Co. organized by J. A. Duffy; build refinery.

Okl. Picher.—Neosho Oil Co. inceptd. with \$10,000 capital by F. J. McGinley and others.

Okl. Tulsa.—Pollyanna Oil & Gas Co. inceptd. with \$30,000 capital by E. E. Dix, Tulsa; Wm. C. Lucas and W. H. Schackelford, Kansas City, Mo.

Okl. Tulsa.—Gasoline.—MacBetty Gasoline Co. inceptd. with \$100,000 capital by W. R. Lindsay, E. E. Pettit and Albert H. Bell.

Okl. Tulsa.—Nelson Oil & Gas Co. inceptd. with \$75,000 capital by John W. Schott, Peter Cope White, Tulsa, Okla., and John T. Nelson, Bloomington, Kan.

Tenn. Rockwood.—H. A. Sackrider, Los Angeles, Cal., and Louis Emory, Jr., Bradford, Pa., leased oil and gas rights on 12,000 acres near Rockwood and will erect drilling rig.

Tex. Beaumont.—Big John Oil Co. inceptd. with \$500 capital by Geo. W. Caswell, John N. Henderson and B. R. McLemore, Jr.; develop properties in Spindle Top oil field.

Tex. Burkburnett.—Oil Refinery.—Burkburnett Refining Co. will build oil refinery on 20-acre site; daily capacity 2000 bbls.; cost \$200,000; Van D. Rathbone, Supt.

Tex. Dallas.—Breck Oil Co. inceptd. with \$50,000 capital by A. H. Johnson, Emil Frets and others; has leases on 800 acres in Stephens County.

Tex. Houston.—Oil Refinery.—Buffalo Oil & Refining Corp., \$15,000,000 capitalization, is being organized by C. T. Rucker and others; leased Rucker townsite tract at Goose Creek, containing producing wells with monthly yield of 10,000 bbls.; plans to build refinery.

Tex. Lufkin.—Harmony Oil Co. inceptd. with \$60,000 capital by W. M. Glenn, W. R. McMullen, P. M. Albritton and others.

Tex. Uvalde.—Company of which C. L. Bloom is manager will expend \$100,000 to sink oil wells on Pulliam Ranch, 10 mi. west of Uvalde.

Tex. Pharr.—Borderland Oil & Gas Co. inceptd. by John A. Cook and others.

Tex. Pittsburg.—Pittsburg-Electra Oil & Development Co. inceptd. with \$15,000 capital by W. A. Smith, H. H. Luedicke and C. L. Turner.

Va. Staunton.—Distributing Station.—Texaco Oil Co. let contract to C. W. Lambert, Staunton, to build 40x60-ft. warehouse and oil tank.

W. Va. Huntington.—King Oil, Gas & Land Co. inceptd. with \$10,000 capital by John S. Sheppard, J. E. Withers, M. S. Wilson and others.

W. Va. Summersville.—Nicholas Oil & Gas Co. inceptd. with \$5000 capital by W. P. Kincaid of Summersville, J. W. Agnew of Clarksburg and others.

### HYDRO-ELECTRIC PLANTS

N. C. Wilmington.—Tidewater Power Co. and Consolidated Railways, Light & Power Co. consolidated with \$1,196,900 capital; Hugh McRae, Pres.

### ICE AND COLD-STORAGE PLANTS

Ala. Montgomery.—Alabama-Georgia Syrup Co. will erect addition to cold-storage plant; 75x150 ft.; 2 stories; brick; cost \$3000.

Ark. Little Rock.—Wilson & Company will build reinforced concrete cold-storage plant at 324 E. Markham St.; cost \$5000.

Ga. Colquitt.—City will build cold-storage and ice plant. Address The Mayor.

Miss. Meridian.—City will vote on ordinance to provide \$150,000 bond issue to construct municipal ice plant; J. M. Dabney, Mayor.

Okl. Jennings.—Jennings Ice & Light Co. inceptd. with \$30,000 capital by C. H. McElroy, B. A. McFarland, both of Jennings, and Ben Bailey, Okmulgee, Okla.

Tex. Sherman.—Sherman Ice Co., W. W. Rogers, Mgr., will construct reinforced concrete and brick addition to cold-storage plant; separate bids for all reinforcing steel; bids opened Sept. 17; plans and specifications at company's office.

### IRON AND STEEL PLANTS

Ala. Bessemer.—Steel Products.—National Steel Products Co. organized by W. W. Wisdom, Jr., Atlanta, Ga., and others; manufacture various steel-product patents, castings and wrought; contemplates establishing factory to cost \$50,000.

Md. Cumberland.—Brass Rolling Mill.—Paul Cleveland and Geo. Groot, Cleveland, Ohio, and Paul Wellington Custer of United States Sales Service Corporation, Cumberland, are promoting establishment of brass rolling mill.

### LAND DEVELOPMENTS

Fla. Miami.—Cheveller Corporation inceptd. with \$500,000 capital; J. F. Jaudon, Pres.; P. B. Jaudon, V.P.; Geo. F. Cook, Secy.-Treas.

Ga. La Fayette.—Wilder Park Development Co. inceptd. with \$50,000 capital by S. Edelstein, S. Zacharias and M. B. Cohn of Hamilton County, Tenn.

Ga. Macon.—Georgia-Florida Farms Co.

inceptd. with \$2000 capital by Alexander Akerman and Loved B. Cheatham.

La. New Orleans.—Bacchi & de Montluzin will develop Rose Hill Cemetery; 60 acres; provide lighting system with underground wiring, build marble chapel, public mausoleum, shelters, etc.

N. C. Aberdeen.—Aberdeen Peach Co. inceptd., capital stock \$125,000; Thos. J. Jerome, Greensboro, Pres.; W. F. Mack, Philadelphia, Pa., Secy.-Treas.; Ralph Leach, V.P., and Gen. Mgr.; develop 800 acres in Moore County, on Pinehurst and Jackson Springs Rd.; peaches and general farming.

Tex. Soudan.—Soudan Farms inceptd. with \$40,000 capital by Floyd Davenport and John W. Venie, Soudan, and Ezra B. Thompson, South Pasadena, Cal.

Va. Hampton.—Warwickshire Corporation inceptd. with \$100,000 capital; F. W. Darling, Pres.; J. M. Cumming, Secy.

W. Va. Huntington.—Whittaker Land Co. inceptd. with \$50,000 capital by F. L. Whittaker, L. N. Frantz, C. W. Cammack and others.

### LUMBER MANUFACTURING

Ala. Wetumpka.—Rollins-Williams Lumber Co. inceptd. with \$5000 capital by L. F. Rollins, A. E. Williams, J. M. Holly and C. Y. McMorris.

Ark. Jonesboro.—Probst Lumber Co., Cincinnati, acquired several hundred acres virgin timber land and will build sawmill.

Ark. Piggott.—J. H. Keller acquired timber on Seven-Mile Island.

Fla. Crystal Springs.—Crystal Springs Lumber & Mfg. Co. will build sawmill; has machinery.

Fla. Pensacola.—Adkinson Lumber Co. inceptd. with \$5000 capital; J. H. Adkinson, Pres.; W. K. Hyer, Treas.; C. M. Frank, Secy.

Fla. Pensacola.—B. C. Duval Lumber Co. inceptd. with \$25,000 capital; B. C. Duval, Pres.; T. H. Nelson, V.P.; H. A. Onley, Secy.-Treas.

Ky. Leslie County.—Buck, Snodgrass & Price, Johnson City, Tenn. (J. M. Buck, L. H. Snodgrass, J. McD. Price of Baltimore, Md.), G. M. Knuckles of G. M. Knuckles Lumber Co., Viper, Ky., Mgr., will install sawmill to manufacture oak, hickory, poplar and soft woods; daily capacity 15,000 ft. sawing and stacking. (Under Ky., Viper, Knuckles Lumber Co. lately noted purchasing timber lands. See Machinery Wanted—Lumber Sawing and Stacking.)

Ky. Viper.—G. M. Knuckles Lumber Co., lately noted purchasing lands in Leslie County, states that Buck, Snodgrass & Price, Johnson City, Tenn., will operate sawmill in Leslie County; daily capacity 15,000 ft. sawing and stacking. (See Ky., Leslie County.)

La. Bogalusa.—Great Southern Lumber Co. will probably build additional hardwood mill and by-products plant; W. H. Sullivan, Gen. Mgr.

La. Tioga.—Lee Lumber Co., S. R. Lee, Pres. and Mgr., let contract to Chas. W. Dean, Tioga, to erect wood and sheet-iron 40x230-ft. building; plans by Jas. Waldron, Shreveport; manufactures yellow pine; daily capacity 75,000 ft.; machinery is supplied. (Lately incorrectly under "Tioga") noted to rebuild plant burned at loss of \$60,000.)

Miss. Ellisville.—John and Rich Anderson acquired 1080 acres timber 7 mi. from Ellisville; build sawmill; construct dummy line from timber to mill; manufacture lumber for shipbuilding.

Okl. Miami.—Williams Lumber Co. will enlarge yards and double capacity.

Tenn. Knoxville.—Rutzel-Paige Co. inceptd. with \$10,000 capital by Lee J. Conner, Geo. F. Rutzel, Jr., Geo. Paige and others.

Tenn. Memphis.—White River Lumber Co. inceptd. with C. G. Powell, Pres.; F. J. Boys, V.P.; V. O. Woodruff, Secy.; H. J. Aldworth, Treas.

Tenn. Nashville.—Leonard Land & Lumber Co. inceptd. with \$10,000 capital by Robt. C. Leonard, P. E. Shacklett, N. C. Leonard and others.

Tex. Nona.—Benton Lumber Co. inceptd. with \$25,000 capital by J. B. Hooks, W. J. Brackin, E. B. Marshall and T. J. Baton.

Va. New Castle.—Egkin & Caldwell Lumber Co. inceptd. with \$3000 capital; M. E. Eakin, Pres.; H. C. Caldwell, Secy.-Treas.

Va. Norfolk.—Lynnhaven Lumber Co. inceptd. with \$25,000 capital; H. C. Johnson, Pres.; Willis V. Fentress, Secy.

Va. Petersburg.—Roper Bros. Lumber Co. increased capital from \$25,000 to \$100,000.

W. Va., Petersburg.—Dudley Lumber Co. Incptd. with \$500 capital by E. B. Gribble, C. H. Senseney, Jos. H. Anderson, E. C. Calhoun and W. F. Hiser.

W. Va., White Sulphur Springs.—M. E. Crisp Lumber Co. Incptd. with \$100,000 capital by M. E. Crisp, White Sulphur Springs; L. O. Bailey, A. E. Weaver, both of Maben, W. Va., and others.

### METAL-WORKING PLANTS

Ark., Fort Smith.—Iron Beds, Auto Accessories, etc.—Fort Smith Metal Products Co. Increased capital from \$50,000 to \$100,000; will equip plant to manufacture 1000 iron beds daily; also plans to manufacture auto accessories. (Lately noted.)

Va., Richmond.—Sheet-metal Products.—Richmond Engineering Co. will build factory; 2 stories; brick; iron and steel; cost \$5000.

### MINING

Ala., Ashland.—Graphite.—Superior Flake Graphite Co., 76 W. Monroe St., Chicago, Ill., organized; W. J. Carney, 76 W. Monroe St., Chicago, Pres.; C. E. Butt, Birmingham, Ala., V.-P.; Jos. J. Wright, Secy.-Treas.; A. P. Dittmar, Ashland, Mgr.; develop 40 acres; capacity 10 tons per hour. (In August, noted incptd., capital \$150,000.)

Ala., Sheffield.—Iron.—Ohio Mining Co. Incorporated with \$30,000 capital; W. F. Hohl, Pres., Lima, O.; C. D. Hohl, V.-P., Calumet, Mich.; E. L. Lull, Gen. Mgr.-Treas., Sheffield.

Ark., Bauxite.—Bauxite.—Norton Bauxite Co. will rebuild plant noted damaged by fire at loss \$50,000.

Ark., Batesville.—Manganese.—Standard Manganese Co., M. H. Cutler, Pres., and Earl C. Casey, V.-P., Incptd. with \$100,000 capital. (Amount of capital lately incorrectly reported.)

Ark., Buffalo.—Lead and Zinc.—Andy Christenson and others (owners of Groundhog mine in Cow Creek camp) will build 50-ton concentration plant.

Ark., Rush.—Zinc.—Lonnie Boy Mining Co. will build zinc mill.

Ga., Hiram.—Pyrites.—Mammoth Mining Co. organized with \$250,000 capital; Emanuel Goodman, Pres.; Wirt H. Miller, V.-P.; D. M. Thomason, Secy.-Treas.; Thos. Marcom, Mgr., all of 1010 People's Bank Bldg., Lynchburg, Va.; develop 300 acres; mine pyrites; install concentrating mill, air compressors, boilers, engine, drill, etc. (See Machinery Wanted—Mining Equipment; Concentrating Mill; Boilers; Engine; Drill.)

Ky., Louisville.—Sand and Gravel.—Louisville Sand & Gravel Co. Increased capital from \$7500 to \$13,500.

Miss., Gulfport.—Gravel.—Harrison County Comms. purchased gravel pit near McHenry and will develop, using gravel for road construction.

Mo., Baxter Springs.—Lead and Zinc.—Haynes Mining Co., Miami, Okla., acquired Sequiyah mine south of Oklahoma-Kansas line, southwest of Baxter Springs, including 20-acre lease and 250-ton concentrating plant; will improve and enlarge mill and extend underground development of lease.

Mo., Century.—Zinc.—Admiralty Zinc Co. will build 400-ton concentrating plant.

Mo., Ozark.—Elk Valley Mining & Development Co. (lately noted chartered), Cunningham Bldg., Joplin, Mo., organized; Randolph D. Talmage, Pres.-Treas.; Jess M. Thompson, Secy.; Joe Todd, Mgr., will develop 600 acres; later, will need mining machinery. (See Machinery Wanted—Mining Equipment.)

Mo., Salem.—Lead and Zinc.—Minneapolis Mining Co. Incptd. with \$50,000 capital by L. J. Newald, Regina Newald and E. W. Bennett.

N. C., Belgrade.—Marl.—Belgrade Phosphate & Carbonate Co. Incptd. with \$50,000 capital; A. J. Joyner, Pres.; F. C. Henderson, Secy.; E. H. Morton, Treas.; L. Z. Eubanks and J. T. Redd, 1st and 2d V.-Ps.; has 140-acre marl deposits on Atlantic Coast Line R. R., between Maysville and Belgrade, and option on 1000 acres adjoining. Address E. H. Morton, Treas., at Maysville, N. C.

Okla., Miami.—Monitor Mining Co. Incptd. with \$100,000 capital by D. E. Andrews, F. E. Welker and L. O. Dixon.

Okla., Miami.—Wolfstone Mining Co., lately noted incptd., will operate plant with postoffice at Tar River. (See Okla., Tar River.)

Okla., Miami.—Sammie Mining Co. Incptd. with \$10,000 capital by Vern E. Thompson, Miami; Verner Taylor and A. W. Taylor, Clinton, Okla.

Okla., Miami.—Lead and Zinc.—Cole Creek Mining & Royalty Co. Incptd. with \$200,000 capital by W. E. Morgan, Miami; C. W. McAbee, Joplin, Mo., and Charles Clark, Tulsa, Okla.

Okla., Miami.—Lead and Zinc.—American Lead & Zinc Co. Incptd. with \$25,000 capital by G. I. Dorrance, Miami; Elmer E. Klein, Oklahoma City; I. M. Putnam, Ardmore, Okla.

Okla., Miami.—Lead and Zinc.—National Lead & Zinc Co., 225 1/2 W. Main St., Oklahoma City, organized; Edwin C. Ruff, Pres.; L. L. Willis, V.-P.; E. W. Buchanan, Secy.-Treas.; will develop 40 acres. (Lately noted incptd., capital \$250,000.)

Okla., Shawnee.—Lead and Zinc.—Right Spot Lead & Zinc Co. Incptd. with \$100,000 capital by A. B. Simpson, John W. Wayland and Mark Pierce.

Okla., Tar River.—Wolfstone Mining Co., 605 Bank of Commerce Bldg., St. Louis, Mo., organized; A. P. Mackley, Pres.; G. W. Decker, V.-P.; H. W. Gleasing, Secy.-Treas.; Ross Blake, Supt.; develop 40 acres; electric machinery. (Under Okla., Miami, lately noted incptd., capital \$300,000.)

Okla., Tar River.—Lead and Zinc.—Niangua Mining & Royalty Co. advises Manufacturers Record. Develop 60 acres; mill not complete; E. S. Warner, Pres., Buffalo, Mo.; R. W. Smith, V.-P., Plad. Mo.; W. S. O'Bannon, Secy.-Treas. and Mgr., Tar River; Jas. Draper, Constr. Engr., Miami, Okla. (Under Okla., Picher, Niangua Mining Co. lately noted to build 250-ton concentrating plant.)

Tex., Alpine.—Nitrates.—Texas Nitrate & Fertilizer Co. Incptd. to develop nitrate deposits on Presidio County; reported to have area 2 1/2 mi. long and 1/2 mi. wide, with 5 to 12-ft. depth; has lease on 2700 acres, including and surrounding the deposits.

Tex., Truscott.—Copper.—Knox County Copper Co. organized; H. W. Turner, Pres.; C. M. Pieratt, V.-P.; S. J. Pieratt, Secy.-Treas., all of Santa Anna, Tex.; develop 230 acres leased lands in Knox county. (Lately noted incptd., capital \$50,000.)

### MISCELLANEOUS CONSTRUCTION

D. C., Washington.—Statue.—State of Pennsylvania will construct memorial statue of General Meade in Botanic Garden; Passett & Simon, Architects, Philadelphia; Charles Grafty and Frank M. Day, sculptors.

Fla., Lake Worth.—Seawall.—Town, A. H. Thomas, Clerk, will construct 2000 ft. seawall; work includes spoil bank, general fill, rock facing of embankment, landing dock and railing around margin of embankment; approximate quantities as follows: Quantities of material in spoil banks, 4340 cu. yds.; general fill, 72,960 cu. yds.; rock facing, 1050 cu. yds.; landing dock length not yet determined; guard railing 2480 lin. ft.; plans, profiles and specifications at office Z. F. Potter, City Engr., Town Hall; bids opened Sept. 11; Alex. Drake, Mayor. (See Machinery Wanted—Seawall.)

La., Krotz Springs.—Levee.—State Board of Engineers, Baton Rouge, let contract at about \$26,000 to Dameron-White Co., Ltd., New Orleans, La., to construct 90,000 cu. yds. Krotz Springs south levee, St. Landry Parish, Atchafalaya River, right bank.

La., New Orleans.—Dredging.—Board of Comms., W. B. Thompson, Pres., Port of New Orleans, will let contract to dredge and maintain specified depth of water at public wharves for period of 1 year from date of beginning work under the contract; specifications at office J. Beveaux O'Reilly, Engr., Suite 200, New Orleans Court Bldg. (See Machinery Wanted—Dredging.)

La., New Orleans.—Levee.—Orleans Levee Dist. Comms. let contract at \$24,403 to Theo. O. Hotard to construct New Beka new levee; about 7700 ft. long; 165,000 cu. yds. earthwork removal and resetting 7700 lin. ft. revetment. (Lately noted.)

La., Plaquemine.—Levee.—Pontchartrain Levee Board opened bids to construct 19,000 cu. yds. new levee in Iberville Parish on left bank Mississippi River and 90,000 cu. yds. work in St. John Parish; Dameron-White Co., Ltd., New Orleans, La., low bidder at about \$255,000.

Miss., Vicksburg.—Levee.—Third Mississippi Dist. opened bids to construct 1,100,000 cu. yds. levee work; W. T. & E. M. Lorenz & Co., Memphis, Tenn., are low bidders; work includes 500,000 cu. yds. of levee at Rosedale, 80,000 cu. yds. at Ellettsley and Shipley, 178,000 cu. yds. at Tallulah, Miss., and 342,000 cu. yds. near Tennessee Plantation in East Carroll Parish, La. (Lately noted.)

N. C., Raleigh.—Dam.—The Doctors Lake Fishing Club (Dr. E. C. Judd and others) will build concrete dam to retain lake of 100 acres.

Tenn., Chattanooga.—Levee.—Flood Prevention Assn. Gen. Com. selected Major A. L. Dabney, Const. Engr., Memphis, Tenn., to make survey and report on project of building levee around Chattanooga.

Tex., Ennis.—Lake.—City, W. D. Farris, Mayor, receives bids to enlarge lake; will require moving approximately 20,000 yds. dirt; specifications at City Hall. (See Machinery Wanted—Dredging.)

### MISCELLANEOUS ENTERPRISES

Ala., Fall City.—Stock Farm.—Fall City Swine Co. Incptd. with \$20,000 capital by J. A. Pickens, C. A. Williams and E. B. Pickens.

Fla., Fort Pierce.—Publishing.—News Printing Co., R. H. Glenn, Pres.-Mgr., now constructing brick-veneered 30x50-ft. building; F. C. McMullen, Fort Pierce, Contr., will install printing equipment; conduct newspaper and printing; date of opening machinery bids not set. Lately noted organized, capital \$15,000. (See Machinery Wanted—Printing Equipment.)

Fla., Orlando.—Hardware.—Joseph Bumby Hardware Co. Incptd. with \$50,000 capital; Alfred W. Bumby, Pres.; Jos. P. Bumby, V.-P.; Frank P. Bumby, Secy.; Chas. E. Bumby, Treas.

Fla., Tampa.—Construction.—Republic Realty & Construction Co. Incptd. with \$50,000 capital; Jacob Bornstein, Pres. and Treas.; Elizabeth Taradash, V.-P.; Ale Bornstein, Secy.

Ga., Americus.—Publishing.—Times-Recorder Co. Incptd. with \$20,000 capital by Franc Mangum, Mrs. Ruth C. Mangum and Arthur Lucas.

Ga., Calro.—Grain Elevator.—W. L. Wright and others will build grain elevator; Brandon Mill & Elevator Co., Marianna, Fla., is estimating.

Ga., Donaldsonville.—Grain Elevator.—Donaldsonville Grain & Elevator Co. will erect mill-construction grain elevator; cost within \$15,000; date of opening building proposals not set; has let machinery contract; capacity 1000 bu. corn and velvet beans. (Thos. Chason, J. L. Dickenson, W. W. Gibson and others lately noted to build grain elevator.)

Ga., Donaldsonville.—Grain Elevator.—Donaldsonville Grain & Elevator Co. Incptd. with \$25,000 authorized capital by Thos. Chason, J. L. Dickenson, W. H. Vanlandingham and others; build \$10,000 grain elevator. (Lately noted.)

Ga., Savannah.—Steamboat Line.—Dr. G. P. Hamilton proposes to lease section of waterfront at foot West Broad St. and install floating dock; also operate high-powered boat between Savannah and Port Wentworth, Ga.

Ky., Louisville.—Iron and Metal.—Central Iron & Metal Co. Incptd. with \$5000 capital by Ben. B. Kort, Herman Kort and Abram Kort.

La., Ruston.—Live Stock.—Martin Land & Cattle Co. Incptd. with \$50,000 capital by Jas. L. Martin, Pres.; has 5000 acres cut-over cane bottom land and will stock with cattle.

Miss., Hazlehurst.—Dairy.—Brookhaven Creamery Co. leased building and will establish skimming station.

Mo., Columbia.—Floral.—Columbia Floral Co. Incptd. with \$20,000 capital by C. C. Bateman, J. W. Bernard and W. E. Smith.

Mo., Kansas City.—Publishing.—Farm Tractor Publishing Co. Incptd. with \$10,000 capital by Henry Strickland and W. B. Clough.

Mo., Kansas City.—Laundry.—Kansas City Laundry Service Co. Incptd. with \$3,000,000 capital by L. Reynolds, L. H. Fisher, H. W. Spencer and others.

Mo., St. Louis.—Iron and Metal.—St. Louis Iron & Metal Co. Incptd. with \$3000 capital by Frank Steinberg, Louis Geeser and Morris Steinberg.

Mo., St. Louis.—Cemetery.—Mount Hope Cemetery Co. Incptd. with \$40,000 capital by Fred. and Jacob C. Hoffmeister, C. J. Kane, G. D. Klemme of Belleville, Ill., and G. M. Ryan, Skeston, Mo.

N. C., Concord.—Publishing.—J. B. Sherrill, Box 336, will rebuild publishing plant building lately noted burned (as "Concord Daily Tribune Publishing Co."); erect 3 to 5-story 32x100-ft. fireproof building; newspaper, daily and semi-weekly, also offices.

Okla., Durant.—Fire Department.—City will vote on \$12,000 fire department bonds. Address The Mayor.

S. C., Charleston.—Incinerator.—City let contract at \$3220 or \$3564 (dependent on length of piles) to Simons-Mayrant Co., Charleston, to construct foundation for garbage incinerator for which Griscom-Russell Co., New York, was lately noted to have contract; 2 stories; 28x28 ft.; 50-ft. stack; daily capacity 40 tons.

S. C., Elloree.—Stock Farm.—Elloree Livestock Co. Incptd. with \$10,000 capital by W. G. Nelson, Elloree, and J. P. Booth, Sumter, S. C.

S. C., Kingstree.—Publishing.—Williamaburg Publishing Co. Incptd. with \$2500 capital by F. Earl Bradham, LeRoy Lee and W. H. Carr.

S. C., Orangeburg.—Laundry.—Orangeburg Chamber of Commerce and Agriculture plans organization of company to establish steam laundry. (See Machinery Wanted—Laundry Equipment.)

Tenn., Dresden.—Stock Farm.—Short Horn Association Incptd. by E. W. Donohoe, C. H. Morgan, Herman Deitzel and others.

Tex., Wichita Falls.—Laundry.—Pond Laundry Co. Incptd. with \$25,000 capital by J. W. Pond, G. W. Pond and R. K. Pond.

Va., Hopewell.—Electric Supplies.—City Electric Supply Co. Incptd. with \$10,000 capital; C. F. Camp, Pres.; F. R. Bostleman, V.-P.; C. W. Nixon, Treas.; K. E. Barber, Secy.

W. Va., Huntington.—Omnibus Lines.—Redman Transportation Co. Incptd. with \$500 capital by C. J. Redman, H. K. Pancake, J. L. Caldwell, Jr., and others.

W. Va., Monongah.—Crematory.—Consolidation Coal Co., John Higgins, Supt., Fairmont, W. Va., will establish crematory. (See Sewer System.)

### MISCELLANEOUS FACTORIES

Ala., Anniston.—Ice Cream.—Alabama Ice Cream Co. Incptd. with \$5000 capital; J. H. Edmondson, Pres., Anniston; R. R. Lacey, V.-P., Gadsden, Ala.; V. C. Lokey, Secy.-Treas., Anniston.

Ala., Birmingham.—Storage Batteries.—Alabama Storage Battery Co. Incptd. with \$6000 capital; H. W. Matthews, Pres.; Fred. Sintes, V.-P.; C. R. Matthews, Secy.-Treas.

Ala., Birmingham.—Electric Supplies.—Matthews Electric Supply Co. increased capital from \$35,000 to \$100,000.

Ala., Montgomery.—Water Bottling.—Buffalo Rock Co., Birmingham, Ala., will remodel building and install bottling equipment.

Ala., Montgomery.—Toys.—Montgomery Toy & Mfg. Co. Incptd. with \$20,000 capital by Ralph D. Quisenberry, E. S. Egge, J. B. Miller and Frank McPherson.

Ala., Tuscaloosa.—Creamery, etc.—City, J. J. Durrett, City and County Health Officer, will erect creamery, pasteurizing plant and slaughter-house at cost of \$17,000.

Ark., Fort Smith.—Cots.—Tucker, Duck & Rubber Co., H. Temple Tucker, Pres., will enlarge plant to increase daily capacity to 1500 to 2000 cots.

Ark., Little Rock.—Mattresses.—Southern Mattresses Co., 2800 W. 15th St., organized; J. D. Oates, Pres.; J. L. Choate, B.-P.; H. S. Nixon, Secy.; will install equipment, including felting machine, cotton opener and cleaner, willow excelsior picker, stuffing machine, 4 power sewing machines and electric motors; cost \$5000; daily capacity 700 mattresses.

Ark., Wheatley.—Hardware.—Harts Hardware Co. Incptd. with \$10,000 capital; J. A. McCutchen, Pres.; W. B. Frith, V.-P.; Jacob Harts, Secy.-Treas.

Fla., West Palm Beach.—Florida East Coast Products Co. Incptd. with \$75,000 capital; Richard B. Waite, Pres.; Henry H. Summa, V.-P.; Wallace E. Magers, Secy.-Treas.

Ky., Louisa.—Beverages.—Frank M. Meek, Williamson, W. Va., and G. V. Meek, Huntington, W. Va., are reported to build bottling plant for beverages.

La., New Orleans.—Envelopes, Boxes, etc.—Commercial Envelope Co., Sam. B. Hollander, Pres., will establish plant to manufacture envelopes and pasteboard boxes; 500,000 envelopes daily; ordered 5 envelope machines each with capacity 98,500 per 10 hours, these machines to cost \$20,000; contracts for paper supply also let.

Md., Baltimore.—Shirts, etc.—Wise Bros., Inc., 126 W. Fayette St., increased capital from \$1,250,000 to \$1,500,000.

Md., Hagerstown.—Clothing.—Royal Woolen Mills Co. acquired building; improve and remodel for store and factory; plans include full glass front, marble bases un-

der windows, plastering and refinishing interior, new floors throughout; 2 upper floors for clothing factory.

Mo. Springfield—Vehicle Polish.—U-Can-C Products Co. Incptd. with \$10,000 capital by R. S. Elder, H. T. Lincoln and G. S. Elder; manufacture polish for automobile bodies and motor vehicles.

Mo. St. Joseph—Fruit Products.—Leo Fruit Products Co. Incptd. with \$12,500 capital by John Leo, W. A. Greenwald and John W. Broadus.

N. C. Charlotte—Bottling.—Quako Bottling Co. organized with W. C. Dowd, Pres.; A. H. Dean, V.-P.; H. S. Brown, Secy.-Treas.; N. W. Wallace, Jr., Mgr.; establish plants at Camp Greene, Charlotte and Camp Jackson, Columbia, S. C. (Lately noted Incptd. with \$10,000 capital.)

N. C. Lenoir—Chairs.—Bernhardt Chair Co. Incptd. with \$50,000 capital by J. M. Bernhardt, B. L. Stone and M. L. Corawell.

N. C. Salisbury—Military Equipment and Supplies.—Army Supply Co. Incptd. with \$25,000 capital by W. T. Rainey, W. T. Rainey, Jr., and Asher Frank.

Okla. Oklahoma City—Beverages.—Colda Beverage Co. Incptd. with \$3500 capital by Jos. F. Hettig, S. K. Bernstein and F. Bagle.

Okla. Oklahoma City—Deodorant.—Ozoner Deodorant Co. Incptd. with \$50,000 capital by D. N. Hitchcock, J. W. Bartholomew and R. F. J. Williams.

S. C. Columbia—Bottling.—Quako Bottling Co., W. C. Dowd, Pres., Charlotte, N. C., will establish bottling plant at Camp Jackson. (See N. C. Charlotte.)

Tenn. Chattanooga—Sanitary Closets.—Chattanooga Sanitary Closet Co. Incptd. with \$10,000 capital by Mort H. Senter, A. R. McNabb, Geo. T. Smith and others.

Tex. Dallas—Mattresses.—Tom B. Burnett Co. will build mattress factory.

Tex. Houston—Rice.—Industrial Mill changed name to Industrial Rice Mill and increased capital from \$50,000 to \$75,000.

Tex. San Antonio—Oils, etc.—International Refining Co. Incptd. with \$75,000 capital by T. A. Coleman, Chas. Dubose and J. W. Ruwe; refine vegetable and nut oil, etc.

Va. Galax—Cheese.—J. P. Carico, E. F. Perkins and D. A. Roberson are committee promoting establishment of cheese factory.

Va. Dante—Mine Door.—Standard Automatic Mine Door Co. Incptd. with \$50,000 capital: Wm. H. Nickels, Jr., Pres., Big Stone Gap, Va.; J. T. Lewis, Secy.-Treas., Dante.

Va. Galax—Furniture.—Galax Furniture Mfg. Co. Incptd. with \$75,000 capital; R. W. Honaker, Pres., Bluefield, W. Va.; E. B. Boggs, Secy.-Treas., Galax.

Va. Norfolk—Beverage.—Imperial Beverage Co. Incptd. with \$10,000 capital; J. R. Council, Pres.; O. J. Parker, Secy.

Va. Norfolk—Brooms.—Edward Ireland, 119 W. 32d St., is interested in proposed installation of broom-making machinery. (See Machinery Wanted—Broom Machinery.)

Va. Radford—Synthetic Ammonia, etc.—War Department, Nitrate Supply Commission, Washington, D. C., submitted recommendations as to proposed plants: Abandon temporarily (because of time required for construction and equipment) plan to build water-power nitrogen fixation station (\$20,000,000 appropriated for this development); select location on New River in Southwest Virginia (probably near Radford) contiguous to supply of coal, sulphuric acid, transportation facilities, etc.; recommends plants to employ synthetic ammonia and oxidation of ammonia processes according to processes of General Chemical Co., New York; build synthetic ammonia plant, estimated to cost \$3,000,000, with daily capacity 60,000 lbs. ammonia; also oxidation process plant, estimated cost \$600,000, with daily capacity equivalent to 24,000 lbs. of 100 per cent. nitric acid; also \$200,000 appropriation for experiments contemplating industrial development of Bucher process for production of sodium cyanide and ammonia, offered by Nitrogen Products Co. of New York.

W. Va. Huntington—Traffic Signals.—Traffic Appliance Co. Incptd. with \$10,000 capital by H. E. Love, Luther T. Long, H. Erskine Spilman and others; build plant to manufacture patented traffic signal.

W. Va. Mullens—Beverage.—Maga Cola Ice & Bottling Corp. Incptd. with \$75,000 capital by B. D. Dunham, I. S. Fine, H. S. Hancock and others.

## MOTOR CARS, GARAGES, TIRES, ETC.

Ala. Mobile—Garage.—Alabama Motor Car Co. organized with F. A. Flynn, Mgr.; Leo M. Flynn, Secy.-Treas.

Fla. Jacksonville—Automobiles.—Smith Form-a-Truck Sales Co. Incptd. with \$35,000 capital; L. W. Hazard, Pres.; W. W. Clark, V.-P.; S. E. Messner, Secy.-Treas.

Fla. St. Augustine—Garage.—Silva & Beach will build 150x50-ft. garage; stone construction; 1 story; install gas engine, electrical storage batteries, generator, etc.

La. New Orleans—Garage.—Universal Motor Co. will occupy building to be built by H. M. Field; 64x128 ft.; daylight style; exterior cream-colored enamel brick; artificial stone trim; showroom on ground floor with white-tiled floor and frescoed walls and ceilings; restroom, office and garage in rear; machine shop, painting and upholstering departments on second floor; cost \$50,000; Walter Cook Keenan, Archt., New Orleans. (Lately noted.)

Md. Baltimore—Garage.—Colonial Development Co., 102 E. Lexington St., will erect 1-story brick garage on alley between Park Heights and Cottage Aves.; 301x38 ft.; cost \$5000.

Md. Baltimore—Garage.—Standard Oil Co., Harford Rd. and B. & O. R. R., will erect garage; 1 story; brick and concrete; 30x30 ft.

Mo. Kansas City—Automobiles.—Security Motor Co. Incptd. with \$50,000 capital by F. C. Downey, Frank E. Wear and Geo. Y. Thorpe.

Mo. St. Joseph—Automobiles.—Lawler Motor Co. Incptd. with \$10,000 capital by Michael P. Lawler, Barney E. Reilly and Adeline Lawler.

Mo. Webster Groves—Automobiles.—Krause Motor Corporation Incptd. with \$15,000 capital by E. J. Krause, Jr., Walter E. Tator and James Duncan.

N. C. Concord—Automobile Traction.—Auto Traction Co. Incptd. with \$10,000 capital by Joe Paris, Annie Paris and O. A. Blackwelder.

N. C. Charlotte—Automobile Transportation.—Red, White and Blue Auto Co. Incptd. with \$25,000 capital by H. Miller, Abram Miller and Sam Levy.

N. C. Elizabeth City—Automobiles.—Albamarie Motor Co. Incptd. with \$25,000 capital by C. H. Lane, T. G. Parks and A. E. Brothers.

Okla. Oklahoma City—Automobiles.—Midland Motor Car & Truck Co. organized with \$1,000,000 capital; James Aydelotte (Chrmn State Board of Affairs), Pres.; Floyd Thompson (V.-P. of Ozark Trails Assn.), V.-P.; Geo. L. Cook (Cashier State National Bank), Treas.; Robt. P. Ingils, Secy.; build \$100,000 plant to manufacture motor cars.

Okla. Ramona—G. V. Motor Co. Incptd. with \$1000 capital by H. C. Allen and others.

S. C. Anderson—Garage.—Piedmont Auto Co. Incptd. with \$5000 capital; J. R. Smathers, Pres.; W. R. Trammell, Secy.-Treas.

Tenn. Memphis—Automobiles.—Universal Motor Car Co. increased capital from \$5000 to \$10,000.

Tenn. Memphis—Garage.—A. B. Lanning has permit to erect garage for Madison Realty Co.; 2 stories; 3 rooms; brick; cost \$18,000.

Tex. Dallas—Trucks, etc.—Texas Truck & Body Co. Incptd. with \$10,000 capital by C. L. DuPay, C. B. Jackson, both of Dallas, and W. L. Roper, Cleburne, Tex.

Tex. Fort Worth—Tractors.—Multa-Power Tractor Co. Incptd. with \$10,000 capital by R. W. Wynne, J. Harry Wynne and Ika A. Wynne.

Tex. Houston—Automobiles.—Dow Motor Co. Incptd. with \$20,000 capital by C. M. Dow, Dr. E. D. Lunn and Geo. M. Dow.

Tex. San Antonio—Automobiles.—North Texas Nash Motors Co. Incptd. with \$40,000 capital by Harry L. Miller, Geo. D. McGloin and W. J. Edgecombe.

Tex. San Antonio—Automobile Transportation.—San Antonio Transportation Co. Incptd. by W. B. Tuttle, Fred. J. Johnston and Walter P. Napier.

Tex. Wichita Falls—Garage.—Stanley Motor & Supply Co. will occupy garage which H. Chenault will erect; 2 stories; 150x50 ft.; brick construction; repair shops on second floor; office and sales department on first floor.

Va. Covington—Garage.—Alleghany Garage organized; J. B. Justice, Pres.; F. P. Hogshead, Drawer 552, V.-P.; Robt. Dickey, Secy.; erect 45x150-ft. fireproof garage; cost \$30,000; open bids about Dec. 1. (Lately noted chartered, capital \$10,000.)

Va. Newport News—Motor Supplies.—Universal Motor Supply Co. Incptd. with \$20,000 capital; M. W. Christian, Pres.; Frank Taylor, Secy.-Treas.

Va. Norfolk—Garage.—Farant Investment Corporation will build brick garage; cost \$3000.

## RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ky. Clinton—Illinois Central R. R., A. E. Baldwin, Chief Engr., Chicago, let contract to T. S. Leake & Co., Chicago, to enlarge storehouses and roundhouse stalls; plans include some track changes, etc.; cost \$100,000.

Tenn. Jackson—Illinois Central R. R. Co., F. R. Judd, Engr. of Buildings, Room 1000 Central Station, Chicago, Ill., advises Manufacturers Record relative to lately-noted enlargements: Erect store and oilhouse, with washrooms and offices, 37x175 ft., 1 story, and 37x72 ft., 2 stories; brick, slate roof, etc.; cost \$50,000; 1-story tank repair shed, frame, 29x36 ft., cost \$500; due rattler house, frame, 1 story, 12x30½ ft., cost \$700; 1-story machine-shop extension, frame, 45x70 ft., cost \$4000; reclamation shed, 1 story, frame, 20x50 ft., cost \$1000; enginemen's wash and locker room (using present brick 16x50-ft. building), cost \$2000. (Lately noted to install machinery and enlarge shops.)

W. Va. Raleigh—Chesapeake & Ohio Ry., F. I. Cabell, Chief Engr., Richmond, Va., will erect engine-house and shop building; 58x140 ft. and 30x70 ft.

## ROAD AND STREET WORK

Ala. Aliceville—City will construct street paving; contract let Sept. 8; Gus E. Hauser, Engr., Columbus, Miss.

Ala. Anniston—Government let contract to Newell Contracting Co., Birmingham, for all grading, street and road work at Camp McClellan; cost \$500,000.

Ala. Birmingham—City, Julian Kendrick, City Engr., will construct certain sanitary sewers, also construct certain grading and concrete alley paving, grading and macadamizing, combined curb and gutter and sidewalk paving, asphaltic concrete paving, steel armored corrugated concrete paving and smooth-surfaced concrete paving; plans and specifications on file with City Engr.; bids until Sept. 11. (See Machinery Wanted—Sewer Construction; Paving.)

Ala. Carrollton—Highway Commission of Pickens County, E. G. Robinson, Chrmn., receives bids until October 4 to grade, gravel, fence, haul and place pipe and make concrete pipe for following roads: Carrollton and Pickens Rd., 7 mi.; State line to Pickensville, 10 mi.; Pickensville-Anniston Rd., 10 mi.; Reform-McShas Rd., 20 mi.; McShas State line road, 12 mi.; approximate quantities as follows: Grading, 150,000 cu. yds.; graveling, 40,500 cu. yds.; clearing and grubbing, 500 stations; pipe, 3500 lin. ft.; bridging, 100,000 ft.; plans and specifications on file at Probate Judge's office, Carrollton, and may be had at office Gus E. Hauser, Const. Engr., Columbus. (See Machinery Wanted—Road Construction.)

Ala. Tuscaloosa—City Commrs. let contract to Enslay (Ala.) Construction Co. to construct road to river.

Ala. Oneonta—Blount County Commrs. receive bids until Oct. 11 to grade and drain part of Huntsville Rd. (part of State Trunk Rd. No. 14, between Blountsville and Gunterville); 5.3 mi.; principal items are as follows: 16,862 cu. yds. earth excavation; 50 cu. yds. rock excavation; 5 acres clearing and grubbing; plans and specifications at office State Highway Dept., Montgomery, Ala., and Probate Judge Blount County, Oneonta; additional information from W. S. Keller, State Highway Engr., Montgomery. (See Machinery Wanted—Road Construction.)

Ala. Wetlowe—Randolph County Commissioners will grade, drain and surface with top soil 3½ mi. road, portion of State Trunk Rd. No. 19, between Rock Mills and Georgia State line; principal items as follows: Earth excavation, 16,000 cu. yds.; solid rock excavation, 1000 cu. yds.; top soil, 5000 cu. yds.; bids opened Oct. 13; plans and specifications at office State Highway Dept., Montgomery, Ala., and Probate Judge, Courthouse, Wetlowe; additional information from W. S. Keller, State Highway Engr., Montgomery. (See Machinery Wanted—Road Construction.)

Ark. Fayetteville—Washington County Commissioners will build 6-mi. graded road from Rogers to Huntsville; State Highway Commission, Little Rock, prepared plans; cost \$10,000.

Ark. Paragould—Greene County Commissioners will build 11-mi. road from Walcott west to Cache River; cost \$40,000; State Highway Commission, Little Rock, prepared plans.

Fla. Bartow—Polk County will organize Special Road Dist., to issue \$300,000 bonds, for widening from 9 to 15 ft. the present (contracted for) portion of Seaside Highway Branch of Dixie Highway, and to construct hard-surface lateral roads; C. W. Brown, Frostproof, Fla., Secy. Com.

Fla. Miami Beach—City, J. F. Canova, Clerk, will pave, grade, roll, scarify and oil Ocean Drive from south line Biscayne Ave. to north line Edmund Wilson tract; paving 13 ft. wide and 12 in. thick, of Dade County rock; bids opened October 1. (See Machinery Wanted—Paving.)

Ga. Atlanta—Government will build 7½-ft. road from DeKalb County line to Camp Gordon; War Dept. is reported to have appropriated \$75,000.

Ga. La Fayette—City, John Garmany, Clerk, will construct 213½ yds. concrete sidewalk according to specifications; bids opened Sept. 20. (See Machinery Wanted—Paving.)

Ky. Jackson—Breathitt County Commrs. will let contract Sept. 17 to construct pike road, 3 mi., from Jackson to Quicksand; ultimate plan calls for total expenditure of \$300,000.

Ky. Paducah—L. A. Washington, Commr. of Public Works, receives bids until Sept. 18 to construct concrete sidewalks and gutters and granite curbing on both sides Madison St., curbing on both sides Monroe St. to west curb line of Nineteenth St. and on north side Madison St., 200 ft. from west curb line of 19th St.; plans and specifications on application. (See Machinery Wanted—Paving.)

Ky. Paducah—McCracken County, Gus G. Singleton, Clerk County Court, will reconstruct Mayfield-Paducah Rd. from city limits at Twenty-fifth and Broadway to Blandville Rd., 5000 ft.; work involves 1074 cu. yds. earth excavation, 300 cu. yds. gravel, 11½ cu. yds. crushed limestone, 10,513 sq. yds. road surface; plans and specifications at office engineer, Courthouse, Paducah, and Dept. Public Roads, Frankfort, Ky.; bids opened Sept. 18. (See Machinery Wanted—Road Construction.)

La. Alexandria—Rapides Parish Police Jury let contract to A. H. Young & Co., Alexandria, to build 4-mi. military highway from Alexandria to Camp Beauregard; material not determined; bids as follows: Bituminous macadam, \$78,375.46; warrentite, \$90,806.10; brick, \$117,701; Duncan Buile, State Highway Engr., Baton Rouge, La. (Previously noted.)

La. Amite—Tangipahoa Parish Road Dist. No. 4 road construction is as follows: Amount available, \$100,000; 20 mi. gravel highway and dirt highway; let contract to T. G. Womack, Kentwood, Miss., at about \$26,000 for 7.3 mi., 3.3 mi. of this running east and west through Kentwood and 4 mi. east and west through Tangipahoa; contract let to S. A. Gano, Jackson, Miss., at about \$70,000 for 13.3 mi. 14-ft. gravel surface from Fluker, La., to Mississippi State line, through Tangipahoa and Kentwood. (Contract to T. G. Womack lately noted.)

La. New Roads—Pointe Coupee Parish let contract at \$125,000 to Grisby Construction Co. of Texas to build 32 miles gravel highway, including loop around False River. (Lately noted.)

La. Slidell—Town Council let contract at about \$10,000 to shell various streets. Address The Mayor.

Md. Cumberland—City will pave and otherwise improve Washington St. between Allegany St. and Brooke Ave.; 2800 sq. yds. brick paving on 4-in. concrete foundation and 1-in. mortar bed; plans and specifications at office Ralph L. Riser, City Engr.; bids opened Sept. 10. (See Machinery Wanted—Paving.)

Md. Cumberland—City will pave Davidson St. from Decatur St. to point 600 ft. east; also let contract to Cumberland Contracting Co. to repave Washington St., between Allegany and Brooke Ave. Address The Mayor.

Md. Towson—Baltimore County Commrs., Hugh J. Gallagher, Clerk, opened bids to construct 1-mi. 14-ft. concrete road on Falls Rd. from Shuman north; 6000 yds. grading, 3572 yds. concrete, 1244 yds. cobble shoulders; Thos. F. Mullian, 4001 Greenmount Ave., Baltimore, low bidder at \$22,574. (Bids lately noted.)

Miss. Carthage—Leake County, Edinburg Road Dist., let contract to Cunningham & Tate, Brooksville, Miss., for 10.78 mi. roads; grading and sand clay; Engr., Gus E. Hauser, Columbus, Miss. (Bids lately noted.)

Miss. Winona—Road Commrs., Dist. No. 2, Montgomery County, will construct 3½ mi. road from Alva and Providence Rd. to new

bridge over Bogue Creek and from creek to town of Duck Hill; bids opened Sept. 29; plans and specifications with road commissioners at Duck Hill, Miss.; Dr. G. Y. Gillespie, Chrmn. Road Commission, Beat 2. (See Machinery Wanted—Road Construction.)

Miss., Yazoo City.—Yazoo County Highway Com., M. Falkner, Germania, Miss., Chrmn., let contract to Edgar Bros. Co., Canton, Miss., for 7 mi. road grading; \$50,000 available; Engr., W. H. Bradley, Flora, Miss. (Bids lately noted.)

Mo., Doniphan.—Ripley County is reported to vote October 2 on \$200,000 road improvement bonds. Address County Comrs.

Mo., Kennett.—City let contract to Carman & Workman, Kennett, to grade, curb and pave sections of Washington Ave. and College St.; Washington Ave. contract calls for 10,046 sq. yds. paving, 8012 lin. ft. curbing, 2200 cu. yds. grading, 594 lin. ft. 6, 10 and 36-in. sewer pipe and 450 lin. ft. concrete headers; College St. contract calls for 5522 sq. yds. paving, 4802 lin. ft. curbing, 1500 cu. yds. grading, 150 lin. ft. concrete headers and 850 lin. ft. 6-in. vitrified sewer pipe; Sam C. Fisher, City Clerk. (Lately noted calling for bids.)

N. C., Bridgeton.—City, Isaac Lewis, Clerk, let contract to Georgia Engineering Co. to construct 20-ft. brick pavement on Bridge St., from Neuse River bridge to B St., and B St. from corporate limit of town on Pamlico Rd. to improved road to Vanceboro. (Lately noted.)

N. C., Centerville.—Franklin County Commissioners, Jno. D. Alston, Chrmn., Louisville, N. C., ordered vote in Gold Mine township October 9 on \$20,000 bonds to construct roads.

N. C., Leaksville.—Rockingham County Comrs., R. E. Wall, Chrmn., Spray, N. C., and City of Leaksville, E. E. Richardson, Mayor, ask bids until Sept. 24 to construct road connecting Leaksville and Spray, and a portion of Main St. in Leaksville; 1.1 mi.; J. N. Ambler, Const. Engr., Winston-Salem, N. C. (See Machinery Wanted—Road and Street Paving.)

N. C., Louisville.—City, L. L. Joyner, Mayor, will let contract to R. G. Lassiter & Co., Oxford, N. C., to construct 50,000 yds. street paving; \$135,000 available; Gilbert C. White, Durham, N. C., Engr. (Lately noted to issue \$135,000 bonds.)

N. C., Salisbury.—Rowan County Comrs. will build central highway through Rowan to west of Salisbury; plans include underpass at Western R. R. crossing and 2 mi. new road; \$30,000 available.

S. C., Charleston.—City will construct 8500 sq. yds. concrete or sheet asphalt pavement; bids received until Sept. 25 by Jas. W. Martin, Engrs. Office, Sanitary and Drainage Com., 39 Broad St. (See Machinery Wanted—Paving.)

Tenn., Chattanooga.—E. D. Bass, Commr. Dept. of Streets and Sewers, receives bids until Sept. 17 for certain grading on Grand Drive, Cameron Hill addition; blank forms for proposals, contract and bond with specifications on application. (See Machinery Wanted—Grading.)

Tenn., Tiptonville.—State Highway Dept., Arthur Crowner, Chrmn., 405 Seventh Ave., North, Nashville, let contract to Aldrich & Bliven, Dyersburg, Tenn., to build 3800 cu. yds. gravel road from Tiptonville to Reelfoot Lake; A. M. Nelson, State Highway Engr., Nashville. (Previously noted.)

Tex., Beaumont.—City let contract at about \$33,000 to Uvalde Rock Asphalt Co., Beaumont, to resurface 5 mi. brick-paved streets with inch thickness of asphalt; C. L. Scherer, City Engr. (Lately noted.)

Tex., Greenville.—Hunt County voted \$100,000 bonds for road building. Address County Comrs.

Tex., Houston.—Harris County Comrs. directed W. N. Thatcher, County Engr., and Howe & Wise, Const. Engrs., to prepare estimates of cost and specifications for constructing and resurfacing 2 1/2 mi. road provided in \$1,000,000 bonds previously voted; \$100,000 bonds additional available for concrete roads in four districts. (Previously noted.)

Tex., San Angelo.—Tom Green County Comrs. plan to issue \$250,000 bonds to improve roads.

W. Va., Elm Grove.—City voted \$32,000 bonds to pave streets and purchase additional fire apparatus. Address The Mayor. (Previously noted.)

## SEWER CONSTRUCTION

Ala., Birmingham.—City, Julian Kendrick, City Engr., will construct certain sanitary sewers, also construct certain grading and concrete alley paving, grading and macadamizing, combined curb and gutter and sidewalk paving, asphaltic concrete paving, steel armored corrugated concrete paving and smooth-surfaced concrete paving; plans and specifications on file with City Engr.; bids until Sept. 11. (See Machinery Wanted—Sewer Construction; Paving.)

Ky., Maysville.—City will vote on \$100,000 bonds to construct sanitary sewage system; J. Wesley Lee, Mayor.

Md., Hagerstown.—CWY Sewerage Commission will build main and lateral sewers in certain streets and alleys; 17,000 lin. ft. sanitary sewers from 8 in. to 36 in. in diameter, with all manholes, foundations, appurtenances; also 10,000 lin. ft. house connections, 6 in. in diameter, with all necessary appurtenances; bids opened Sept. 29; specifications and blank forms at office commission; E. Le Roy Heard, Secy. (See Machinery Wanted—Sewer Construction.)

Mo., Kansas City.—Board of Public Works will call for bids to construct sewer in District No. 356, Division No. 5; cost \$30,000.

Okla., Boynton.—City will issue \$30,000 bonds to build sewer system; J. F. Wolfinger, Chrmn.

Okla., Boynton.—City will issue \$30,000 bonds to improve sewer system; J. F. Wolfinger, Chrmn.

Okla., Sand Springs.—City will vote on bonds to improve sewer system and for motor trucks and fire plugs. Address The Mayor.

Tex., Elgin.—City let contract to H. W. Cardwell Contracting Co., Texarkana, Ark., to construct sewer; cost \$12,000; Henry E. Elrod, Engr., Interurban Bldg., Dallas, Tex. (Lately noted.)

W. Va., Monongah.—Consolidation Coal Co., John Higgins, Supt., Fairmont, W. Va., will expend \$40,000 to establish crematory, provide sanitary closets in all houses and install sewer system.

## SHIPBUILDING PLANTS

Fla., Apalachicola.—W. L. Dunn, New York, is promoting organization of company to establish plant to build seagoing barges and ships under Government contract.

Ga., Brunswick.—Glynn Shipbuilding Co. organized by Rosendo Torras and others; leased river front property at foot of K St.; build wooden ships.

## TELEPHONE SYSTEMS

Fla., Vero.—Brevard County Telephone Co., Indianola, Fla., G. W. Smith, Fort Pierce, Fla., Engr. in charge, will lay 3500 ft. cable in sand and install switchboard. (Lately noted.)

Ky., West Liberty.—War Creek Telephone Co. inctpd. by A. J. Howerton, L. T. Roman, T. H. Easterling and Thos. Adams.

Ky., Hawesville.—Farmers Telephone Co. of Hancock County inctpd. by J. D. Ruco, O. T. Rice and E. D. Rice.

N. C., Goldsboro.—Southern Bell Telephone Co. will erect exchange and office building; 3 stories; brick.

Okla., Woodward.—Fort Supply Telephone & Telegraph Co. increased capital from \$50,000 to \$75,000.

Tex., Fairly.—Fairly Telephone Co. inctpd. by Ernest R. Eudaley, Ben. Gleason, J. H. Davis and others.

W. Va., Grafton.—Cecl Telephone Co. inctpd. with \$5000 capital by E. T. Colebank, J. J. M. Alexander, W. S. Rogers, Howe R. Knoppe and Camden Swisher.

## TEXTILE MILLS

Ala., Prichard.—Cotton Products.—Barker Cotton Mills will build dyehouse and bleaching plant.

Ga., Gainesville.—Cotton Goods.—Pacolet Mfg. Co., central office, Spartanburg, S. C., let contract to Huntington & Guerry, Greenville, S. C., to electrify Gainesville Cotton Mills and Pacolet Mills; install several hundred motors from 5 to 150 H. P.; obtain electricity from transmission system of Georgia Railway & Power Co., Atlanta, Ga.; furnish 6000 H. P. to these 2 mills.

N. C., Cherryville.—Yarns.—Melville Mfg. Co. increased capital from \$125,000 to \$300,000.

N. C., High Point.—Silk.—Stehli Silks Corporation will build addition to silk mill; 3 stories; brick; 100x230 ft.; about double capacity of plant.

N. C., Lawndale.—Hosiery.—Piedmont Hosiery Mills Co. organized; W. R. Newton, Prest., Secy. and Treas.; capital \$50,000; erect wood building; install 20 knitting machines; cost of machinery, \$10,000; electric power; daily capacity 200 dozen pairs hose. (Lately noted.)

N. C., Statesville.—Hosiery.—Queen Knitting Mills will install 100 additional knitting machines; equipment purchased.

N. C., Hickory.—Hosiery.—Clairmont Hosiery Mills chartered with \$6000 capital by C. S. Groves, C. T. Morrison, J. M. Arnold and others; acquires Groves & Morrison's hosiery mill.

S. C., Pacolet.—Cotton Goods.—Pacolet Mfg. Co., central office, Spartanburg, S. C., let contract to Huntington & Guerry, Greenville, S. C., to electrify Pacolet Mills and Gainesville (Ga.) Cotton Mills; install several hundred electric motors from 5 to 150 H. P.; obtain electricity from transmission system of Georgia Railway & Power Co., Atlanta, Ga.; furnish 6000 H. P. to these 2 mills. (Previously noted.)

## WATER-WORKS

Fla., Bunnell.—City will probably vote on bonds for water-works. Address The Mayor.

La., Vinton.—Vinton Water, Light & Ice Co., J. W. Wetherill, Secy., retained Xavier A. Kramer, Magnolia, Miss., as engineer for water system.

La., Westwego.—Company with Leo A. Marrero, Gretna, La., Prest., will install water plant, cost \$25,000; use river water, filtered; bonds proposed. (Lately noted.)

Md., Cumberland.—Evitts Creek Water Co. (City of Cumberland) opened bids to construct addition to filtration plant; Pitt Construction Co., Pittsburgh, Pa., is lowest bidder; cost of enlarged plant \$75,000 to \$80,000; Jas. H. Fuertes, Const. Engr., 140 Nassau St., New York. (Previously noted.)

Miss., Clarksdale.—City is reported to have let contract to Lane & Bowler Co., New Orleans, to drill artesian well.

Mo., Galena.—City ordered vote Oct. 2 on \$100,000 bonds for water-works. Address The Mayor.

Mo., Monett.—City let contract to M. E. Gillioz, Monett, to build 1,000,000-gal. reinforced concrete reservoir; cost \$14,493 without roof, \$18,464 with roof. (Lately noted.)

Okla., Granite.—City voted \$5000 bonds to drill deep well to increase water supply. Address The Mayor. (Lately noted.)

Okla., Miami.—City, R. Q. James, official in charge, will expend \$45,000 on water-works construction; Engr., Hughes Engineering Co.; date of opening bids not set. (Lately noted.)

Okla., Waurika.—City voted \$20,000 bonds to improve water-works system; W. H. Divers, Mayor.

Tex., Big Lake.—Henry Japson purchased Big Lake townsite; reported to construct water-works, electric-light plant, etc.

Tex., Cisco.—City will build concrete stand-pipe on College Hill for additional supply of water from new lake under construction. Address The Mayor.

Tex., Howe.—Howe Water Works, J. L. Blackburn, Secy., will install tower; has installed motor and machinery in plant and extension costing \$5000; lately noted. (See Machinery Wanted—Tower.)

Tex., Throckmorton.—City, R. Brittain, Mayor, receives bids until Sept. 14 for material and construction of lately-noted water system; approximate quantities as follows: 25,000 cu. yds. earth dam; 4800 ft. 8-in. vitrified sewer pipe; 3000 ft. 6-in. cast-iron pipe; 12 hydrants; 5 valves; pumping machinery; 50,000-gal. reinforced concrete water tower, alternate steel water tower; plans and specifications at office Henry Exall Elrod, Const. Engr., Dallas, and Mayor, Throckmorton. (See Machinery Wanted—Water-works.)

W. Va., Fairmont.—Board of Affairs will install 1000 new meters at pump station, with allowance for 25 per cent. more.

## WOODWORKING PLANTS

Ark., Newport.—Staves.—Hogue & Williams will rebuild stave mill reported damaged by fire at loss of \$3000.

La., Plaquemine.—Boxes, etc.—John R. Moorman will build combination shingle mill, lath mill and box factory on Bayou Plaquemine about 10 miles from Plaquemine.

Miss., Greenville.—Barrel Hoops.—Queen City Hoop Co., P. W. Hick, Tutwiler, Miss., Prest., completing erection of previously-described plant; daily capacity 75,000 slack barrel hoops; buildings to cost \$7500; construction by the company; machinery practically purchased; capitalization \$30,000. (Lately noted as enlarging capacity.)

N. C., Maiden.—Picker Sticks, Desks, etc.—Clay Mfg. Co. will manufacture picker sticks and loom supplies; also school desks; B. M. Spratt, Jr., Prest.; W. G. Bundy, V.-P.; G. E. Mauney, Secy.; H. E. Clay, Mgr. (Lately noted; building under construction; machinery purchased.)

## FIRE DAMAGE

Ala., Birmingham.—Lane's Auditorium; loss \$5000.

Ark., Bauxite.—Norton Bauxite Co.'s plant; loss \$50,000.

Ark., Newport.—Hogue & Williams' stave mill; loss \$3000.

Ark., Prairie View.—Wilder-Blair Co.'s warehouse; Dr. W. H. Higdon's barn.

Fla., Pablo Beach.—Pablo Development & Power Co.'s dwelling, occupied by J. R. Brodnax.

Ga., Savannah.—Building owned by Mrs. O. W. Jackson, Isle of Hope, Ga., and others, and occupied by Newark Shoe Store Co., National Dental Parlor and A. D. S. soda fountain; loss \$3000.

Ky., Irvington.—First Baptist Church. Address The Pastor.

Ky., Kevil.—I. O. O. F. and W. O. W. lodge hall, Dr. C. L. Brittain's dental office, store and W. L. Beck's garage; loss \$15,000.

La., Destrehan.—Huastec Petroleum Co.'s tanks containing 50,000 bbls. oil.

Md., Arlington.—George Gunther's dwelling at Main St. and Lewiston Ave.; loss \$3500.

Md., Centerville.—Bedford Weate's out-buildings on farm near Centerville; loss \$5000.

Md., Glencoe.—John Halliday's residence; loss \$5000.

Md., Reisterstown.—Mrs. Daisy W. W. Snyder's dwelling; loss \$2500.

Mo., Kansas City.—R. L. Rinker's apartment-house.

N. C., King.—James I. Moore's barn near King.

N. C., Louisville.—Frank Joyner's residence.

Okla., Roff.—Nichols Hotel.

S. C., Cameron.—D. J. Crook's dwelling.

S. C., Fountain Inn.—Fountain Inn High School; loss \$20,000. Address The Mayor.

S. C., Laurens.—Allen Bramlett's residence.

Tex., Brenham.—Messina & Ventura's store.

Tex., Corsicana.—S. W. Molder's residence.

Tex., Crockett.—John D. Morgan's residence; loss \$3000.

Tex., Dayton.—Ben Susholtz's residence.

Tex., Degatur.—International Hotel; loss \$7000.

Tex., Galveston.—William Schadt's store and warehouse; loss \$50,000.

Tex., Harlingen.—Buildings of Gulf Coast Marketing Co., owned by A. L. Brooks; loss \$20,000.

Tex., Luling.—Walker Bros.' warehouse.

Tex., Hutto.—T. G. Hyslop's cotton gin; loss \$20,000.

Tex., Stanton.—P. C. Tom's residence; loss \$5000.

Tex., Temple.—William Taylor's mortuary parlors; loss \$10,000.

Tex., Thorndale.—E. T. Lehman's dwelling.

Va., Harrisonburg.—Ernest Long's residence near Goods Mill; loss \$4000.

Va., Suffolk.—Dill-Cramer-Truitt Lumber Co.'s box factory; loss \$25,000.

## DAMAGED BY STORM

Ky., Lexington.—Eastern Kentucky State Hospital; loss \$5000 to \$6000.

## WRECKED BY EXPLOSION

Ky., Arlington.—T. A. Stanley's sawmill.

# BUILDING NEWS

## BUILDINGS PROPOSED

### APARTMENT-HOUSES

Fla., Auburndale.—Elmer E. Cline will erect store; upper floor for offices and apartments. (See Stores.)

Fla., St. Petersburg.—C. J. Godsey will erect 4-apartment flat; brick veneer; 2 stories; cost \$5500.

Ga., Atlanta.—A. P. Herrington will erect 2-story duplex apartment-house; cost \$4500.

Ga., Atlanta.—A. H. Bailey will erect apartment-house. (See Dwelling.)

Ga., Atlanta.—W. M. McLane will erect 2-story brick-veneer apartment-house; cost \$7000.

Ga., Atlanta.—C. A. Tappan, 75 S. Broad St., will rebuild 3-family apartment-house at 40 N. Boulevard; 2 stories; cement and hollow tile; pine floors; green slate roof; cost \$7000; hot-air heat, about \$300; electric lighting, \$350; Lella Ross Wilburn, Archt., Peters Bldg., Atlanta; construction by day labor under supervision of R. W. Davis. Address owner. (Lately noted.)

Tex., Dallas.—E. P. Yates plans to erect 6 apartment buildings on Lancaster Ave.; cost \$100,000.

### ASSOCIATION AND FRATERNAL

Ga., Milledgeville.—Elks' Club will erect building to replace lately-noted 3-story burned structure. Address The Secretary.

Okla., Bristow.—Creek Lodge No. 226, A. F. & A. M., A. H. Lyons, Secy., has plans by Layton & Smith, 701 Majestic Bldg., Oklahoma City, for 2-story brick Masonic Temple; cost about \$80,000; bids opened Sept. 10. (Previously noted.)

### BANK AND OFFICE

Ark., Little Rock.—U. S. Auto Co., M. S. McCord, Mgr., will erect office building; 123x150 ft.; reported cost \$100,000.

Fla., Auburndale.—Elmer E. Cline will erect store; upper floor for offices and apartments. (See Stores.)

Ky., Louisville.—H. E. Hall will expend \$6000 to remodel brick office building.

Md., Baltimore.—Citizens State Bank of Maryland, Samuel Want, Pres., is having plans prepared by Sparklin & Childs, 502-06 Law Bldg., Baltimore, for building at 582-84 N. Gay St.; stucco; 30x50 ft.

Tenn., Nashville.—Fletcher Wilson Co. will erect office building rear 539 Eighth Ave.; brick; cost \$3000.

Tex., Bonham.—Bonham Cotton Mills has plans for \$3000 office building.

Tex., Nacogdoches.—E. Blount and T. Baker have plans for 3-story brick and concrete office and garage building; cost about \$30,000.

### CHURCHES

Ark., Benton.—First Baptist Church is having plans prepared by C. L. Thompson, Little Rock, for \$10,000 building; 60x70 ft.; wood floors; electric lighting. (Lately noted.)

Ark., Dardanelle.—M. E. Church South, Rev. E. Myers, pastor, is receiving bids to erect proposed building.

Ark., Hope.—Rocky Mound Baptist Church will erect building. Address The Pastor.

Ark., Texarkana.—Second Baptist Church, Rev. B. F. Stokes, Pastor, will erect \$25,000 structure.

Fla., Port Richey.—Methodist Church, Rev. Alfred Evenden, pastor, is having plans prepared for building.

Fla., Quincy.—Methodist Church plans to erect \$30,000 structure. Address The Pastor.

Ga., Lagrange.—First Methodist Church will expend \$5000 for repairs to church and parsonage. Address The Pastor.

La., Maurice.—Catholic Church, Rev. L. Laroche, pastor, has plans by G. Honold, Abbeville, La., for building; 120x45 ft.; frame; shingle roof; wood floors; cost \$8000; bids opened Sept. 15. Address Rev. L. Laroche. (Lately noted.)

Okla., Marlow.—Baptist Church plans to erect building. Address The Pastor.

Tenn., Knoxville.—First Baptist Church, Dr. Len G. Broughton, Pastor, is having plans prepared by Barber & McMurry, B. & T. Bldg., Knoxville, for church and Sunday-school structure; cast cement blocks with

brick facing; slate roof; wood floors; Warren-Webster heating plant; city lighting; cost \$100,000; date opening bids not determined. (Lately noted.)

Tex., Mount Pleasant.—Baptist Church receives bids through Van Slyke & Woodruff, Archts., 607 Burk Burnett Bldg., Fort Worth, until Sept. 15 to erect building; 2 stories and basement; brick and cut stone; clay tile roof; S. P. Pounders, Chrmn. Building Com. (Previously noted.)

Tex., Strawn.—C. H. Leinbach, 1105 Southwestern Life Bldg., Dallas, is preparing plans for brick church.

Va., Graham.—Christian Church will erect building; brick; bowled oak or maple floor with some tile; probably metal roof; steam heat electric lights; cost \$20,000 to \$30,000; architect not selected; date opening bids not determined. Address C. A. Metcalf or Jos. N. Harker. (Lately noted.)

### CITY AND COUNTY

Ark., Little Rock.—Fire Station.—City Commissioners plan to erect additional fire station at 15th St. and Pike Ave.

Ark., Murfreesboro.—Jail Commissioners are having plans prepared by Witt, Seibert & Co., Texarkana, Tex., for 2-story jail building.

Ga., Lafayette.—Hospital.—Board of Commissioners of Roads and Revenue of Walker County will erect hospital at pauper farm. (See Hospitals.)

Tenn., Nashville.—Parthenon.—Park Commission will restore parthenon at Centennial Park; concrete construction; tile roof; cost \$50,000; bids opened Sept. 10. Address Parthenon Restoration Committee of Engineering Assn. of Nashville, Fourth and First National Bank Bldg. (Lately noted.)

Tex., Dallas.—Farm.—City will erect assembly building at prison farm. Address The Mayor.

### DWELLINGS

Ala., Fort Payne.—E. S. Kilian is erecting brick building; 2 stories.

Ala., Fort Payne.—Dave Campbell is erecting residence on Alabama Ave.

Fla., Daytona Beach.—C. C. Lightbrown will erect residence.

Fla., Fruitland Park.—J. W. Van Orden will erect dwelling.

Ga., Atlanta.—Dr. C. J. Barnes will erect 2-story frame dwelling; cost \$2500.

Ga., Atlanta.—R. H. Henderson will erect dwelling; 2 stories; frame; cost \$3000.

Ga., Atlanta.—J. S. and C. R. Collins will erect four 1-story frame dwellings; cost \$12,000.

Ga., Atlanta.—E. Morris will erect dwelling; 50x35 ft.; 1 story; brick veneer; 7 rooms; cost \$4250.

Ga., Atlanta.—A. H. Bailey will erect 2-story frame dwelling and garage; also 2-story brick-veneer apartment-house; cost \$16,500; day labor.

Ga., Atlanta.—Mrs. Ira P. Ford will erect 2-story frame dwelling; cost \$4000; day labor.

Ga., Brunswick.—S. K. Brown will erect 4 bungalows.

Ky., Mayking.—Mayking Coal Corporation will build 100 miners' houses; lets contract at once. (Noted in July to erect 75 houses.)

La., Baton Rouge.—Toledano, Wogan & Bernard, Perrin Bldg., New Orleans, are preparing plans for 2-story residence and garage; hollow terra-cotta with stucco finish; tile roof; steam heat; cost \$10,000.

La., Monroe.—G. O. Dooley will erect frame dwelling; cost \$2500.

La., Monroe.—Mrs. L. L. Summerall will erect residence; frame; cost \$2450.

La., Monroe.—J. R. Stengell will erect dwelling; brick; cost \$3500.

Md., Baltimore.—Francis E. Yewell, 3616 Fairview Ave., has plans by John R. Forsythe, 222 St. Paul St., Baltimore, for cottage on Forest Park Ave.; 32x56 ft.; frame; slate roof; wood floors; hot-water heat; electric lights; cement sidewalk; cost \$7500; construction by owner, who may be addressed. (Lately noted.)

Miss., Clarksdale.—Jake Fink is having plans prepared by M. M. Alsop, Clarksdale, for bungalow; cost \$10,000.

Mo., Kansas City.—John R. Townsend will erect residence in Mission Hills.

Mo., Kansas City.—Margaret Lyons will erect 2-story stucco dwelling; cost \$4000.

Okla., Ardmore.—W. F. Freeman has plans by E. S. Boze for 2-story residence; bids opened.

Okla., Oklahoma City.—E. N. Redman will erect two 1-story frame dwellings on W. 29th St.; cost \$4500.

Okla., Oklahoma City.—C. E. Frye is erecting 6 dwellings; 1 story; frame; cost \$23,750.

S. C., Florence.—Dr. F. H. McLeod is receiving bids to erect \$20,000 to \$25,000 brick residence; plans and specifications at office W. D. Harper, Archt., Florence.

Tex., San Antonio.—W. A. Baily will erect 2 dwellings; cost \$3700.

Tex., San Antonio.—R. Franzae will erect 6-room dwelling; cost \$3000.

Tex., San Antonio.—Clem Coleworthy will erect 6-room dwelling; cost \$2900.

Va., Mountain Lake.—George W. Warren, Richmond, has plans by Lyman Denison, Mountain Lake, for bungalow.

W. Va., Gary.—United States Coal & Coke Co. will erect 150 additional dwellings for operatives; also erect number of clubhouses.

### GOVERNMENT AND STATE

Ala., Anniston.—Range Targets.—War Department, Washington, D. C., will expend \$125,000 to construct range targets at Camp McClellan.

D. C., Washington.—Storage.—Bureau of Yards and Docks, Navy Department, receives bids until Sept. 24 to erect storage building for models at Navy Yard; 3 stories; reinforced concrete piles; concrete foundation; terra-cotta tile walls; built-up roofing over concrete slab; drawings and specifications (No. 2534) obtainable on application to Bureau or commandant of navy-yard; F. R. Harris, Chief of Bureau.

Fla., Jacksonville.—Training Camp.—Quartermaster-General's Department, Washington, D. C., is having plans prepared by Lockwood, Greene & Co., Atlanta, for Quartermasters' training camp at Black Point, 8 mi. from Jacksonville; accommodate 25,000 men; Col. I. W. Littell, Washington, in general charge. (Lately noted.)

Ga., Macon.—Remount Depot.—War Department, Washington, D. C., will erect remount depot at Mogul near Camp Wheeler; accommodate about 10,000 mules and horses.

Ga., Savannah.—Custom-house.—David C. Barrow, Jr., Custodian U. S. Custom-house, opened bids to repair and paint building; Grohne Contracting Co., Joliet, Ill., low bidder on 2 contracts—one for repairs and painting, other for repairs to main entrance, etc.

Ga., Washington.—Postoffice.—Treasury Department, Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., opened bids to erect postoffice; W. J. Brent, Norfolk, Va., is low bidder at \$39,876. (Lately noted.)

Md., Baltimore.—Supply Depot.—War Department, Washington, D. C., is reported to construct supply depot at Canton.

Tenn., Columbia.—Experiment Station.—State, Tom C. Rye, Governor, Nashville, selected site and will expend \$100,000 for buildings and equipment for Middle Tennessee Agricultural Experiment Station.

Va., Norfolk.—Piers.—Bureau of Yards and Docks, Washington, D. C., opens bids Sept. 15 to erect 5 warehouse piers at Jamestown Exposition Grounds.

Va., Waynesboro.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., opens bids Oct. 15 to erect postoffice; plans and specifications at office custodian of site, Waynesboro, and Mr. Wetmore, Washington.

### HOSPITALS, SANITARIUMS, ETC.

Ga., La Fayette.—Board of Commissioners of Roads and Revenue of Walker County, J. L. Rowland, Clerk, receives bids until October 2 to erect frame building at pauper farm to be used as hospital; 30x40 ft.; shingle roof; 8 rooms 10x12 ft.; porch 8x20 ft.; plans and specifications at office Clerk Board of Commrs.; material furnished by County.

Mo., St. Joseph.—City is having plans prepared by Trunk & Gordon, Donnell Court Bldg., St. Joseph, for maternity hospital; cost about \$70,000. (Previously noted.)

N. C., Durham.—Durham County Commrs. will erect hospital for insane; cement and brick; cost \$8000.

Tex., Abilene.—Alexander Sanitarium. is having plans prepared by R. S. Glenn,

Abilene, for hospital building; concrete, brick and tile; tile floors; cost \$30,000. (Lately noted.)

### HOTELS

Md., Admiral.—Camp Meade Amusement & Mercantile Co. Incptd. and will erect building for hotel, theater, etc. (See Theaters.)

Md., Baltimore.—Maryland War Recreation Committee organized with Dr. Wm. Burdick, Chrmn., 2706 Elsinor Ave.; will remodel old Y. M. C. A. building, Charles and Saratoga Sts., for hotel; 1000 beds.

Miss., Laurel.—Pinehurst Hotel, B. F. Horton, Mgr., will soon let contract to complete and furnish 4th floor of hotel, adding about 30 rooms.

Mo., Kansas City.—J. B. Bray purchased Hotel Dixon and leased building at Twelfth and Baltimore Sts.; plans include 100 additional rooms, roof garden, etc. to hotel.

Tex., Weatherford.—Chamber of Commerce, W. C. Long, Jr., Secy., is interested in proposition to erect hotel; 40 rooms; cost \$40,000; plans not mature, but it is proposed to raise money locally, erect building and lease to hotel man.

Va., Hopewell.—John B. Greenway is considering erecting hotel and business building. (See Stores.)

### MISCELLANEOUS

Ga., Atlanta.—Library.—American Library Assn. will erect \$10,000 library at Camp Gordon; Robert L. Foreman, Atlanta, State Director of War Service Com. of American Library Assn.

Md., Admiral.—Bowling Alley, etc.—Camp Meade Amusement & Mercantile Co. Incptd. and will erect building for hotel, store, bowling alley, etc. (See Theaters.)

Md., Baltimore.—W. C. Robinson Oil Co. will erect 1-story brick shed on Dock and Caroline Sts.; 40x53 ft.; contractors estimating are. Consolidated Engineering Co., 243-59 Calvert Bldg.; Cogswell-Koether Co., 406 Park Ave.; C. E. Stubbs, 548 Equitable Bldg.; all of Baltimore.

N. C., Henderson.—Exhibit.—Fair Association, E. M. Rollins, Secy., will erect frame exhibit building; about 50x100 ft. Address Mr. Rollins.

S. C., Columbia.—H. S. Kealhofer, Secy., Chamber of Commerce, is interested in organization of stock company to erect restaurant; seating capacity about 1000.

Va., Petersburg.—Library.—National Library Assn. will erect library at Camp Lee; Arthur Kyle Davis, Petersburg, Chrmn. Fourth Congregational Dist. Com.

### RAILWAY STATIONS, SHEDS, ETC.

Ala., Decatur.—Southern Ry. System B. Herman, Ch. Engr., M. W. & S. Lines East, Charlotte, N. C., will enlarge and remodel union passenger station; cost \$15,000.

Ark., Bentonville.—State Railroad Commission directed St. Louis-San Francisco Railway Co., F. G. Jonah, Chief Engr., St. Louis, to enlarge and remodel station; plans not prepared.

Okla., Oklahoma City.—St. Louis & San Francisco R. R. Co., F. G. Jonah, Chief Engr., St. Louis, will erect passenger station and office building; 146x130 ft.; reinforced concrete; cost \$300,000; bids will soon be invited; Lehenbaum, Marx & Vignaut, Archts., 175 W. Jackson Blvd., Chicago. (Lately noted.)

Tex., Sweetwater.—Texas & Pacific Ry., C. H. Chamberlin, Ch. Engr., Dallas, will erect station.

### SCHOOLS

Ala., Birmingham.—Board of Education selected H. B. Wheelock, Steiner Bldg., Birmingham, to prepare plans for Woodlawn High School; preliminary plans include 2 study-rooms to accommodate 100 pupils each; 3 science-rooms, 24 pupils each; 3 rooms for commercial work; domestic art group to consist of cooking-room, storeroom, dining-room, sewing-room, sitting-room, housekeeping suite, kitchen, pantry, etc., accommodate 72 pupils; manual training group of 3 rooms; artroom, 24 pupils; administration group; auditorium to seat 300; gymnasium 50x30 ft.; 1000 lockers; lunchroom, 450 pupils; boiler and fanrooms; cost \$300,000. (Lately noted.)

Ark., Conway.—Board of Trustees, State Normal School, rejected bids to erect administration building; 2 stories and basement; brick; cost about \$75,000; will have plans revised and open new bids Sept. 21;

John P. Almand, Archt., 1107 Boyle Bldg., Little Rock. (Lately noted.)

Ark., Dyer.—Dyer Special School District voted \$14,000 bonds to erect school; 6 rooms; brick. Address District School Trustees.

Ark., Mahila.—School Board will erect \$12,000 school building.

Ark., Tuckerman.—Tuckerman Special School District postponed erection of \$32,000 school building until next year. (Previously noted.)

Fla., Fort Green.—Fort Green School Dist. is receiving bids to erect \$17,000 brick school building. Address Dist. School Trustees.

Fla., Kenansville.—Board of Public Instruction of Osceola County, Walter C. Bass, Chmn., Kissimmee, Fla., receives bids until Sept. 22 to erect proposed school building; plans and specifications at office Alan J. MacDonough, Archt., Kissimmee, Fla.

Ga., Atlanta, R. F. D. No. 7.—Georgia Training School for Girls will erect dormitory, 2 stories; brick veneer; composition shingle roof; electric lighting; cost \$25,000; steam heat, \$1200; architect not selected; probably open bids November 1. Address Chmn. Board of Managers. (Lately noted.)

Md., Baltimore.—Board of Education will soon call for bids to erect school, gymnasium and principal's residence; cost about \$50,000; F. Cookman Leach, Archt., 323 N. Charles St., Baltimore.

N. C., Lowell.—Lowell Graded School Dist. No. 7, South Point Township, votes October 9 on \$25,000 bonds to erect and equip school. Address Dist. School Trustees.

N. C., Paw Creek.—Paw Creek School Dist. No. 5 voted \$12,000 bonds to erect high school; 11 grades. (Lately noted.)

Okl., Binger.—Binger School Dist. voted school bonds. Address Dist. School Trustees.

Okl., Chickasha.—R. S. Cox, County Clerk, receives bids until Oct. 1 to erect brick addition to Lincoln separate school; plans and specifications at office Macklin & Fought, Archts., Chickasha.

Okl., Choctaw.—Consolidated School Dist. No. 4 will erect building; 63x75 ft.; brick and concrete; gravel and tile roof; wood floors; steam heat; electric lighting; cost \$15,000; Edward J. Peters, Archt.; bids opened Sept. 4. Address Wm. McGinnis, Choctaw. (Lately noted to have voted \$20,000 bonds.)

Okl., Clinton.—Clinton School Dist. is considering \$15,000 bond issue to erect school building; election Sept. 4. Address Dist. School Trustees.

Okl., Commerce.—Commerce School Dist. voted \$10,000 bonds to remodel school building. Address Dist. School Trustees. (Previously noted.)

Okl., Elk City.—Elk City School Dist. contemplates bond issue to erect high-school building. Address District School Trustees.

Okl., Enid.—Schol. Dist. No. 33 will erect cement block school building; bids opened Sept. 7; C. W. Vories, Clk.

Okl., Glenpool.—Board of Education receives bids until Sept. 30 to erect addition to Glenpool High School; plans and specifications at office Rush, Endicott & Rush, Archts., 226 Unity Bldg., Tulsa, Okla.

Okl., Granite.—School Board of Consolidated School Dist. No. 3, Ed Flynn, Clerk, receives bids until Sept. 18 to erect brick school near Granite; plans and specifications at office Bramblet & Huseman, Archt., Oklahoma City, and Clerk of Board.

Okl., Haledon.—City voted \$40,000 bonds to erect school. Address The Mayor. (Lately noted.)

Okl., Schultze.—School District No. 7 will erect 8-room stone or brick school building; bids opened. Address County Supt.

Okl., Star.—Star School Dist. voted bonds to erect school. Address Dist. School Trustees.

Okl., Stillwater.—City School Board plans to improve Washington school building.

Okl., Tulsa.—Board of County Commrs., Lewis Cline, Clerk, receives bids until Sept. 17 to erect three 1-room frame buildings for Minority Schools in Tulsa County; plans and specifications at office County Supt. of Schools, Courthouse.

S. C., Anderson.—Flat Rock School Dist. No. 33 votes Sept. 10 on \$3250 bonds to erect and equip public school. Address Dist. School Trustees.

S. C., Columbia.—Trustees of Epworth Orphanage will erect school building; Rev. H. Z. Nabers, Supt.

Tex., Austin.—State Institute for Deaf, Dumb and Blind receives bids until Sept. 19

to erect 3-story fireproof dormitory and heating, plumbing and electric wiring for same; plans and specifications at office W. E. Kitchum, Archt., 618 Littlefield Bldg., Austin.

Tex., Breckenridge.—Breckenridge Independent School District has plans by C. H. Leimbach, 1105 Southwestern Life Bldg., Dallas, for school building; bids opened. (Previously noted.)

Tex., Bryant.—City Board of Education plans election on \$100,000 bond issue to erect school.

Tex., De Leon.—School Board, B. J. Pitman, Pres., has plans by David S. Castle, Abilene, Tex., for school buildings; bids opened Sept. 12; plans and specifications at office architect and School Board.

Tex., Post.—School Board, W. O. Stevens, Pres., will erect high school; 2 stories; 62x96 ft.; brick; asphalt, felt and gravel roof; frame floors; city lighting; cost \$27,000; bids opened Sept. 10; separate bids on plumbing, heating and wiring; plans and specifications at office of R. E. Gilmore, Archt., Double U Bldg., Post, and Mr. Stevens. (Lately noted.)

Tex., Roby.—Capitola School District will erect 4-room brick school building; bids opened; R. S. Glenn, Archt., Abilene, Tex.

W. Va., Bluefield.—Board of Education receives bids until Sept. 15 to erect Lincoln school; 12 rooms and auditorium; brick; plans and specifications at office Edwin C. Wade, Supt. of Schools.

W. Va., Logan.—Board of Education, Logan Dist., opens bids Sept. 15 to erect 2-room frame buildings at McConnell and Dehue and single-room building at Lyburn; frame; composition roofs; hardwood floors; jacketed stoves; McConnell and Dehue buildings to cost \$2500 each and Lyburn building \$1800; J. B. McCorkle, Archt., Logan. Address Charles Avis, Secy. Board of Education, Logan. (Lately noted.)

## STORES

Ark., Monette.—A. Kohn is erecting business building; 55x75 ft.

Fla., Auburndale.—Elmer E. Cline will erect 2-story brick block; 105x90 ft.; 2 store-rooms 25x50 ft., and 8 smaller ones; upper story for clubs, offices, apartments, etc.

Ga., Atlanta.—Dodson's Printing Supply Co. is reported to erect building.

Ky., Louisville.—J. F. Gibbs will erect 2 brick stores at 458-60 Fifth St.; cost \$2300 each.

Md., Admiral.—Camp Meade Amusement & Mercantile Co. Incptd. and will erect building for hotel, theater, store, etc. (See Theaters.)

Md., Baltimore.—Joseph B. Cook has plans by Clyde N. Friz, 1523 Munsey Bldg., Baltimore, for remodeling building 1003 W. Baltimore St.; following builders are estimating: Cowan Building Co., 106 W. Madison St.; Thos. L. Jones & Son, 410 W. Saratoga St.; Price Construction Co., 219 Maryland Trust Bldg.; C. C. Watts, 407 E. Twenty-fifth St.; J. Henry Smith, 1426 Light St.; all of Baltimore.

Md., Hagerstown.—Royal Woolen Mills Co. leased Wilson & Stevenson Bldg. and will remodel for store and factory building; plans include glass front, marble bases under windows; first floor for offices, showroom and salesroom; second and third, for factory; interior replastered and refinished; new floors, etc.

Mo., Kansas City.—A. Schulz will erect 1-story brick business building; cost \$3000.

Mo., Kansas City.—E. Shukert is reported to erect 10-story commercial and industrial building at Grand Ave., Walnut and Twenty-sixth Sts.; exterior of terra-cotta and tapestry brick; designed to be available later for hotel; F. H. Michaelis, Archt., Kansas City.

N. C., Wilmington.—W. P. Roudabush & Co. will expend \$5000 for improvements to store building.

Okl., Haskell.—E. P. Ritchey plans to erect business building.

Okl., Haskell.—C. Van Horn will erect business building.

Okl., Lawton.—J. F. Tedford will erect business building on E Ave.

Okl., Okmulgee.—X. R. Gill Co. will erect business building; 2 stories; 80x100 ft.

Tex., Dallas.—Management of E. B. Doggett Bldg. will erect 2-story addition at 2316-22 Griffin St.; cost \$32,000.

Tex., Haskell.—Hancock & Co. will erect brick store building; cost \$12,000.

Tex., Ladonia.—T. F. Isom will erect business building.

Tex., Memphis.—Dr. C. F. Wilson will erect business building; brick.

Tex., Memphis.—Dr. J. M. Ballew will erect brick business building.

Va., Hopewell.—John B. Greenway is considering erecting business and hotel building; brick; 3 stories; 2 upper stories for hotel.

Va., Petersburg.—I. C. Shore and others are interested in erection of theater near Camp Lee; contain 6 stores. (See Theaters.)

Va., Richmond.—Charles and Alvin Hutzler will expend \$3000 to repair brick store.

Va., Richmond.—E. Merrell will expend \$5000 to repair store building.

## THEATERS

Md., Admiral.—Camp Meade Amusement & Mercantile Co. Incptd. with \$100,000 capital

by Ed. A. Powers, Pres. Suburban Hotel; Charles Cahn, 3408 Park Heights Ave.; Samuel J. Fisher, 704 Union Trust Bldg., and others, all of Baltimore; will erect building near Camp Meade to be used as theater, hotel, bowling alley, lunchroom and drug store; auditorium of theater to seat about 1500.

Va., Petersburg.—I. C. Shore, S. W. Zimmer, J. L. Vaughan and others are interested in erection of auditorium theater near Camp Lee; plans include structure 100x137 ft.; stage 40x157 ft.; seating capacity, 2000; 6 stores.

## WAREHOUSES

Ga., Atlanta.—Bullard Company organized with \$20,000 capital; William Bullard, Pres. and Gen. Mgr.; will erect warehouse.

Ga., Thomaston.—Weaver-Birdson Co. will erect warehouse.

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

Fla., St. Petersburg.—Myer Cox, Newton, Ill., let contract to Robert Sharp, St. Petersburg, to erect apartment-house; 8 apartments.

Ga., Atlanta.—Dr. J. D. Cromer let contract to A. D. Hamilton, 69 Ivy St., Atlanta, to erect 2-story frame apartment-house; 6 apartments of 3 rooms each; cost \$4200; frame; composition shingle roof; wood floors; gas lighting.

Tex., Bonham.—J. M. Wells let contract to J. W. Miller, Paris, Tex., to erect dwelling; 42x48 ft.; Astec rough brick and interlocking tile; vitrified red tile roof; maple floors; cost \$16,000; American radiator hot-water heat, \$1630; electric lighting, \$300; Sparger & Peters, Archts., Bonham; construction begun. Address owner.

Va., Norfolk.—T. J. East has plans by and let contract to Mr. Nichols, Norfolk, to erect apartment-house; 2 stories; brick; slate roof; hardwood floors; hot-water heat; cost \$5000. Address owner.

### ASSOCIATION AND FRATERNAL

Ga., Macon.—Army Y. M. C. A. let contract to W. Z. Williams, Macon, to erect 7 buildings at Camp Wheeler; 40x113 ft.; wood construction; rubber roof or similar material; wood floors; about 25 stoves in each building; cost \$2800 each; construction begun; W. S. Stallings, Camp Secy. (Lately noted.)

N. C., Charlotte.—Knights of Columbus let contract to Consolidated Engineering Co., 243 Calvert Bldg., Baltimore, to erect building; 100x40 ft.; 1½ stories; so arranged that building may be converted into church.

Okl., Porum.—A. F. and A. M. No. 351 have plans by and let contract to Henry Vogel, Muskogee, Okla., to erect bank and Masonic building; 25x50 ft.; brick; rubber roof; concrete and wood floors; stoves; electric lighting; cost \$3000. (Lately noted.)

Tenn., Chattanooga.—National Y. W. C. A. let contract to erect hostess-house at Camp Warden McLean; 120x40 ft.; Miss Fay Kellogg, Archt., in charge of construction.

Va., Lynchburg.—Juanita Tribe, No. 103, Improved Order of Red Men, is considering erection of hall; R. G. Shelton, Com.

### BANK AND OFFICE

D. C., Washington.—A. C. Mather, Chicago, let contract to erect business and office building. (See Stores.)

D. C., Washington.—District National Bank let contract to Wm. P. Lipscomb & Co., 1405 F St. N. W., Washington, to erect 10-story addition to bank building on G St.; 23x113 ft.; 72 office-rooms; Milburn, Heister & Co., Archts., Union Savings Bank Bldg., Washington.

Okl., Porum.—A. F. and A. M. No. 351 let contract to erect bank and Masonic building. (See Association and Fraternal.)

### CHURCHES

Fla., Fort Myers.—Episcopal Church let contract to erect 15-ft. addition and alterations to present structure. Address The Rector.

Ga., Atlanta.—First Presbyterian Church let contract to W. H. George, Atlanta, to erect addition to Sunday-school building; 2 stories; brick; cost \$10,000.

Tex., Lewisville.—Presbyterian Church let contract to erect building. Address The Pastor.

### CITY AND COUNTY

Tex., Floresville.—City Hall.—City let contract to Stephenson & Lillie, Floresville, to erect building for city hall and store; 82x82.1 ft.; 2 stories; hollow tile; stucco; gravel roof; cement floors; cost \$7900. Address W. O. Stephenson, Floresville. (Lately noted.)

Tex., Munday.—City Hall.—City let contract to J. C. Ray, Munday, to erect city hall; brick, tile and concrete; tar and gravel roof; cement sidewalks; 44x70 ft.; cost \$11,000; C. H. Leimbach, Archt., Southwestern Life Bldg., Dallas. Address Contr.

### DWELLINGS

Fla., Daytona Beach.—F. T. Poliaty let contract to L. Z. Burdick, Daytona Beach, to erect bungalow on Orange Island.

Fla., Palm Beach.—Jas. H. Kennedy, Boston, Mass., let contract to C. C. Lighthow, West Palm Beach, to erect residence; cost about \$12,000.

Fla., St. Petersburg.—Charles R. Towle, Haverhill, Mass., let contract to E. H. Lewis, St. Petersburg, to erect bungalow.

Fla., St. Petersburg.—Dr. C. E. Welch let contract to Chas. DuBois, 340 Fourth St. S., St. Petersburg, to erect 5-room bungalow; frame; Reynolds shingle roof; cost \$3500; Wm. S. Shull, Archt., Independent Bldg., St. Petersburg. (Lately noted.)

Ga., Atlanta.—H. W. Nicholes let contract to H. W. Nicholes & Sons, Atlanta, to erect 2-story brick-veneer dwelling; 12 rooms; cost \$12,000.

Ga., Atlanta.—D. E. Caldwell will erect 1-story brick-veneer residence; 6 rooms; cost \$3750; L. B. Eason & Son, Contrs., Atlanta.

Ga., Atlanta.—Dr. L. J. Blanton will erect 2-story frame dwelling; cost \$6250; J. S. and C. E. Cochran, Contrs., Atlanta.

Ga., Atlanta.—Miss S. L. Smith let contract to A. D. Hamilton, 69 Ivy St., Atlanta, to erect residence; 2 stories; frame; cost \$2650; composition shingle roof; wood floors; electric lighting.

Miss., Clarksdale.—Dr. J. E. Bramblet let contract to Estes & Williams, Clarksdale, to erect dwelling; brick veneer or chinchilla brick; composition roof; wood floors; tile baths and showers; cost \$8000; hot-water heat, \$1200; lighting, \$900; M. M. Alsop, Archt., Clarksdale. (Lately noted.)

Miss., Johnstown.—Wirt Jaynes let contract to Estes & Williams, Clarksdale, Miss., to erect brick-veneer bungalow; hot-water heat.

N. C., Newbern.—B. D. Robertson let contract to Blythe & Isenhour, Charlotte, N. C., to erect residence; cost \$50,000.

Tenn., Memphis.—Nathan Karnowsky is reported to have let contract to S. Malkin, Memphis, to erect 2-story 9-room brick-veneer residence; cost \$5000.

Tex., Ennis.—J. L. Champion let contract to erect \$9000 residence.

Tex., Orange.—H. J. L. Starke let contract to H. N. Jones Construction Co., 330 Vera Cruz St., San Antonio, to erect 51 frame cottages; about 25 ft. square; 2 to 5 rooms; frame, yellow pine; Barrett slate-coated roofing; yellow-pine floors, cost \$35,000; let wiring contract at about \$1900 to Orange (Tex.) Ice, Light & Water Co. (Lately noted.)

Va., Norfolk.—J. C. Harrell let contract to Bright & King, Norfolk, to erect 2-story frame residence; cost \$2475.

Va., Williamsburg.—Wise Granite & Construction Co., Richmond, has contract to erect 20 cottages at Penniman plant for employees.

### GOVERNMENT AND STATE

Ga., Savannah.—Postoffice.—Treasury Department, Washington, D. C., let contract to Woolard & Cunningham, Savannah, to repair postoffice; cost about \$3500. (Lately noted.)

La., Lake Charles.—Aviation Camp.—War Dept., Washington, D. C., let contract to Janse Bros., Boomer, Crain & Howe, New Orleans, to construct aviation camp; erect 30 dwellings; 2 units requiring 12 hangars each; construct temporary railroad track from Holmwood Station; total expenditure about \$2,000,000, including equipment; Capt. C. T. Waring in charge of construction. (Lately noted.)

N. C., Charlotte.—Magazines.—War Dept., Washington, D. C., will erect 4 magazines at Camp Greene; 24x60 ft.; reinforced concrete, including roof; Consolidated Engineering Co., Calvert Bldg., Baltimore, general contractor; Maj. Clarence H. Greene, Constructing Quartermaster, Camp Greene.

S. C., Charleston.—Storehouse, etc.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., let contract to Simons-Mayrant Co., 13 Broad St., Charleston, to erect torpedo storehouse, about 52x155 ft.; shellhouse, 18x50 ft.; magazine building, 127x50 ft.; 1 story; hollow tile and reinforced concrete; asbestos shingle roof; concrete floors with wood finish; electric wiring and lamps on one building; cost \$112,000 to \$114,000. Address contractor or Charleston Engineering & Contracting Co., Charleston. (Lately noted.)

Tenn., Millington.—Aviation School.—War Dept., Washington, D. C., let contract to Thomas-Harmon Co., St. Louis, to erect buildings for aviation school; total frontage 400 ft.; depth 502 ft.; frame; wood and concrete floors; composition roofs; electric lighting; heating not decided; cost \$750,000; Albert Kahn, Archt., Detroit, Mich. Address J. Paul Gaines, C. E., 121 Madison Ave., Memphis, Tenn. (Lately noted.)

Tex., Wichita Falls.—Aviation Camp.—War Dept., Washington, D. C., let contract to Gilsonite Construction Co., 215 First National Bank, Wichita Falls, to construct aviation camp; wood; Certainteed roofing; wood and concrete floors. Address Contractor. (Lately noted.)

Va., Newport News.—Ammunition Depot.—Navy Department, Washington, D. C., let contract to Simmons, Hartenstein & Whitton, Inc., Charlotte, N. C., to construct ammunition depot and storage warehouse near Newport News.

Va., Norfolk.—Warehouse.—Navy Dept., Washington, D. C., let contract at \$473,000 to Cramp & Co., Denka Bldg., Philadelphia, to erect storage warehouse at naval base at Jamestown Exposition Grounds.

Va., Norfolk.—Warehouse.—Government let contract to James Stewart & Co., 30 Church St., New York, to erect engineer depot storage warehouse at Lambert's Point; 500,000 sq. ft.

### HOSPITALS, SANITARIUMS, ETC.

Kan., Girard.—City let contract to S. S. Geatches, Pittsburg, Kan., to erect hospital; 2 stories and basement; 50x35 ft.; ordinary construction; composition roof; oak and tile floors; cost \$12,314; 1-pipe gravity steam-heating system, 1674; Madorie & Field, Archts., 832 Reserve Bank Bldg., Kansas City, Mo. Address Contractor.

Ky., Paducah.—City let contract to W. M. Karnes & Son, Paducah, to erect contagious ward for Riverside Hospital; plans call for structure 25x60 ft.; built-up tar and gravel roof; basement and first floor; basement concrete; cost \$5215; steam heat, \$2000; electric lighting, \$150; H. L. Lassiter and Sherrill-Russell Lumber Co., Archts., Paducah. (Lately noted.)

Md., Annapolis.—Navy Dept., Washington, D. C., let contract to John Waters Building Co., 23 E. Centre St., Baltimore, to erect 5 emergency hospital buildings; frame, brick and concrete; cost \$100,000; prepared roofing; wood floors; completion in about 90 days. Address Contractor. (Previously noted.)

### HOTELS

Fla., Miami.—Ed. T. Davis let contract to erect hotel and store building. (See Stores.)

### MISCELLANEOUS

D. C., Washington.—Stable and Garage.—L. E. White, 5632 Conduit Rd. N. W., let contract to J. H. Thompson, to erect stable and garage on L St.; 45x103 ft.; slag roof; concrete and tile floors; cost \$5000 to \$6000; hot-water heat \$400; electric lights \$200; R. Bruce Atkinson, Archt., 2233 Eighteenth St. N. W., Washington; all contracts let. (Lately noted.)

La., Hammond.—Fair.—Parish Fair Association let contract to erect buildings.

S. C., Seabrook Island.—Clubhouse.—Klawato Club Co., Charleston, S. C., let contract to Simons-Mayrant Co., Charleston, to erect clubhouse; 70x100 ft.; frame; cedar shingle roof; garage for 12 cars; install electric-light plant and water-works system; cost \$6000; David B. Hyer, Archt., Charleston. (Lately noted.)

### RAILWAY STATIONS, SHEDS, ETC.

Ky., Paducah.—Illinois Central Ry., A. S. Baldwin, Ch. Engr., Chicago, let contract to George W. Katterjohn, Paducah, to remodel and erect addition to passenger station; construct new waiting-rooms; install lavatories; erect 54-ft. addition; brick and stone; slate roof; wood floors; extension to present heating system; erect train sheds, etc.; cost \$24,000. (Lately noted.)

### SCHOOLS

Ala., Lewisburg.—Jefferson County Board of Education, Birmingham, let contract to W. M. Marriener & Co., Birmingham, to erect 2 schools; cost \$25,000; 168x68 ft. and 100x52 ft.; 2 stories and basement; concrete, tile, brick and steel; tar and gravel roof; rift-pine floors; electric lighting; steam heat to cost \$4000; D. O. Whilden, Archt., 501-02 Title Guarantee Bldg., Birmingham. (Lately noted.)

Ala., Montgomery.—City let contract to O. C. Greeson, Montgomery, to erect school at Birmingham and Electric Sts. in North Montgomery; 1 story; hollow tile; cost \$7,255; Okel & Cooper, Archts., Montgomery.

Miss., Columbia.—Trustees of Mississippi Industrial Training School let contract to Dabbs & Wetmore, Meridian, Miss., to erect lately-noted administration building, superintendent's home and 2 cottages to accommodate 40 pupils each; brick; composition roof; cost \$55,500; Xavier A. Kramer, Archt., Magnolia, Miss. Address Contractors. (See Machinery Wanted—Heating; Sewerage Equipment; Water Equipment.)

Miss., Prairie.—School Board let contract to Vanlandingham & Elmans, West Point, Miss., to erect school building; 2 stories; 3 rooms; brick; tin-shingle roof; wood floors; cost \$6000; J. R. Parish, Archt., Jackson, Tenn. (Lately noted.)

N. C., Raleigh.—State School for Blind let contract to W. B. Barrow, Raleigh, to erect 3 buildings, including administration and kindergarten buildings and cottage for girls; 180x90, 125x90 and 105x75 ft., respectively; fireproof; tile roofs; fireproof floors; cost \$57,731, \$37,965 and \$44,895, respectively, exclusive of heating; Frank K. Thomson, Archt., Raleigh. Address Contractor. (Lately noted.)

Okla., Miami.—School District No. 15 let contract to Murphy & Bere, Picher, Okla., to erect 2 central high-school buildings; J. M. Rowley, Supt., Bd. of Education, Miami. (Previously noted.)

Okla., Muskogee.—State Board of Affairs, Oklahoma City, let contract to L. F. Lee Construction Co., 5 W. Third St., Oklahoma City, to erect addition to administration building at School for Blind; 2 stories and basement; fireproof; slate roof; concrete slab floor construction; cost \$50,000; Charles W. Dawson, Archt., Muskogee. Address contractor. (Lately noted.)

Okla., Taloga.—School let contract to H. E. Livingston to erect school building.

Okla., Tulsa.—School Board let contract at \$10,750 to J. B. Wilson & Co., Clinton Bldg., Tulsa, to erect auditorium, gymnasium and 2 classrooms for Sequoyah School; 42x74 ft.; plans by W. D. Van Siclem, 319 S. Detroit Ave., Tulsa, call for first story, brick; second, stucco on metal lath; Simplex or Wilson Reverso windows; asbestos shingle roof; slate blackboards; wood joist floor construction; electric lighting; cement sidewalks; steam heat to cost about \$2100. (Lately noted.)

Okla., Watonga.—School Board let contract to Miller & Craven, Watonga, to erect building in Dist. No. 42, cost \$4890; building in Dist. No. 86, cost \$435; building in Dist. No. 52, cost \$455.

Tenn., Germantown.—Shelby County Board of Education, Courthouse, Memphis, let contract at \$19,250 to B. W. Cox, Memphis, to erect addition to school; Jones & Furbringer, Archts., Porter Bldg., Memphis. (Lately noted.)

Tenn., Memphis.—School Board let contract at \$17,250 to Meers & Dayton, Memphis, to erect Oakland Ave. school; also let contract for heating to Quinian & Butler; plumbing, Hall Plumbing Co.; lighting, McCrory Electrical Co.; all of Memphis; plans by Broadwell & Mahan, Memphis, call for 1 story; 8 rooms and auditorium; electric lights; steam heat.

Tex., Concord.—School Board let contract to J. M. Housouer to erect school building.

Tex., Gatesville.—State Juvenile Training School let contract to Mann Construction Co., Dallas, to erect building; 70x90 ft.; fireproof; reinforced concrete; tar and gravel roof; cement floors; steam heat; electric lighting; cost \$34,000; W. G. Clarkson, Archt., Fort Worth; let contract for plumbing to S. P. Osburn, and for electric wiring to Eugene Ash Electric Co., both of Fort Worth. (Lately noted.)

Tex., Iago.—Trustees of Wharton County Common School Dist. No. 27, A. A. Mullens, Pres., let contract to J. C. Jopling & Bro., Corsicana, Tex. (address Wharton, Tex.), to erect school building; 36x62 ft.; 2 stories; brick; Black Diamond slate roof; wood floors; individual heaters; cost about \$7500; J. E. Large, Archt., Bay City, Tex. (Lately noted.)

Tex., Leesville.—School Board let contract to Stephenson & Lillie, Floresville, Tex., to erect school building; 50x90 ft.; 2 stories; hollow tile; 6 classrooms; cost \$7500.

W. Va., Charleston.—Kanawha County Board of Education, H. H. McCarley, Supt., will erect schools as follows: Collins District, 2; Adams Run, 2; Christ Church District, 1; McClellanville, 1; Ravenel, 1.

### STORES

D. C., Washington.—A. C. Mather, Chicago, let contract to Arthur L. Smith & Co., Woodward Bldg., Washington, to erect office and business building at 916-18 G St. N. W.; reinforced concrete frame with brick walls; reinforced concrete and tile floors; concrete and slag roof; vapor system of heating; electric lighting; 1 electric passenger and 1 electric freight elevator; cost \$215,000; C. L.

Harding, Archt., 729 15th St., Washington. (Previously noted.)

Fla., Miami.—Ed. T. Davis let contract to George Van Houton, Miami, to erect building; 2 stories; 5 stores on first floor; hotel-rooms above.

Fla., Vero.—Paul Berndt let contract to Even & Brunen, Box 61, Vero, to erect store and office building; 53x119 ft. on south side and 135 on north side; first story 12-inch concrete blocks; second, stucco; built-up roof with gravel finish; cement and wood floors; heating and lighting not determined; cost \$13,000; O. J. Williams, Archt., West Palm Beach, Fla. Address contractors. (Lately noted.)

Md., Baltimore.—Samuel Miller let contract to James E. Hood, 3049 Barclay St., Baltimore, to erect store building, Barclay St. and Merryman Lane; brick; 20x40 ft.

Miss., Clarksdale.—F. G. Bobo let contract to Wm. Morford to erect store; 22x40 ft.; brick.

Tex., Floresville.—City let contract to erect building for store and city hall. (See City and County.)

Va., Portsmouth.—J. T. Morris let contract to L. L. Reynolds, 323 High St., Portsmouth, to erect 1-story addition, 24x40 ft., in rear of store building; tapestry brick front with metal and tile finish; gravel roof; wood floors; tile vestibule; granolithic sidewalk; cost \$4967; lighting \$150; C. Johnson & Son, Archts., Portsmouth. Address contractor. (Lately noted.)

### THEATERS

Ark., Earle.—Company let contract to D. L. Crouch, Earle, and Memphis, Tenn., to erect building for picture theater and auditorium; 125x40 ft.; 2 stories; brick; Carey composition roof; probably pine floors over concrete; electric lighting; heating and sidewalks not determined; cost \$6500; S. G. Weigel, Archt., Memphis.

### WAREHOUSES

Ga., Thomaston.—T. J. Reeves let contract to erect warehouse and storage-room; 85x98 ft.; brick.

Va., South Hill.—Watson & Crafton let contract to L. C. Browning, South Hill, to erect tobacco warehouse; 90x176 ft.; brick; composition roof; wood floor; electric lights; cost \$12,000 to \$15,000. (Lately noted.)

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

### "WANTS"

Attrition Mill, etc.—Hackley Morrison, 204 Moore Bldg., 167 N. 9th St., South Richmond, Va.—Prices on cake breaker and attrition mill.

Baling Presses (Metal Scrap).—O. A. Barry, Box 507, Globe, Ariz.—Data and prices on presses for baling tin cans and light tin scrap, etc.

Beams (Iron).—Fayetteville Ice & Mfg. Co., Fayetteville, N. C.—24 new or second-hand 12-in. "I" beams, 32 in. long.

Boilers.—Mammoth Mining Co., Hiram, Ga.—Boilers for pyrites plant.

Boiler, Plumbing Repairs, etc.—Treasury Dept., Supervising Archt.'s office, Washington, D. C.—To open bids Sept. 19 for repairs to plumbing, new heating boiler, etc., U. S. Postoffice, Anderson, Ind.; drawings and specifications obtainable this office or office of custodian, Anderson.

Boilers.—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' spot cash prices on two 150 H. P. return-tubular boilers, good for 125 to 150 lbs. working pressure; quick delivery; specifications and condition.

Breaker (Cake).—See Attrition Mill, etc.—Hackley Morrison.

Bridge Construction.—Board of Road Directors for Allegany County, J. T. Edwards, Chrmn., Cumberland, Md.—Bids until Sept. 20 to construct 2 steel highway bridges, 80-ft. "C C" with 12-ft. roadway,

over Town Creek, about 8 miles from Oldtown, Md.; all superstructure according to Theodore Cooper's latest specifications for steel highway bridges, and substructure of 1-2-4 American Portland cement concrete; alternate bids may be submitted on either steel or reinforced concrete; plans and specifications at office D. P. Lefevre, Road Engr., Cumberland.

Bridge Construction.—Camden County Commrs. Roads and Revenue, St. Marys, Ga.—Bids until Oct. 2 to build steel bascule drawbridge, 80-ft. clear opening, with cypress timber approaches, all supported by cypress piling, across Satilla River at Woodbine Ferry near Woodbine; plans and specifications on file office of Commrs., St. Marys; at Ferry House, Woodbine Ferry, and office of Wm. M. Torrance, Consult. Engr., 123 Bull St., Savannah, Ga.; copies of plans and specifications obtainable from Consult. Engr. for \$10; bids also received on alternate design in reinforced concrete, except steel draw span; total cost of bridge within \$20,000; separate bids for steel draw span and for remainder of work, or bids for structure complete in one contract.

Bridge Construction.—McCracken County, Gus G. Singleton, Clerk County Court, Paducah, Ky.—Bids opened Sept. 18 to construct bridge over Massac Creek at High Point on Paducah and Metropolis (Noble) Rd.; concrete sub-structure and four 80-ft. steel spans; separate bids for sub-structure

and superstructure; plans and specifications at engineer's office, Courthouse, Paducah, and Department of Public Roads, Frankfort, Ky.

**Bridge Construction.**—Red River Bridge District Comms., Louis Josephs, Secy., Texarkana, Ark.—Bids until Oct. 4 to construct bridge over Red River; superstructure, metal work provided by district; substructure to be constructed, superstructure erected and concrete trestles and embankments built; bridge with trestle and embankment 1890 ft. long, providing paved roadway 18 ft. wide on concrete floor; \$260,000 bonds; plans and specifications at office of Dist., Texarkana, and Harrington, Howard & Ash, Conslt. Engrs., Kansas City, Mo.

**Bridges and Culverts.**—Supervisors, Montgomery County, Winona, Miss.—To let contract October 1 for 30 concrete culverts and bridges of sizes 4x4 to 30-ft. bridges; plans and specifications on file.

**Broom Machinery.**—Edward Ireland, 119 W. 32d St., Norfolk, Va.—Addresses of manufacturers of broom machinery.

**Buckets (Iron or Steel).**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Sept. 18 for delivering galvanized iron or steel buckets at naval station, New Orleans. Apply for proposals to supply officer, naval station, New Orleans, or to Bureau.

**Buckets (Iron or Steel), etc.**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Sept. 18 for delivering galvanized iron or steel buckets and zinc dust at navy-yard, Norfolk. Apply for proposals to supply officer, navy-yard, Norfolk, or to Bureau.

**Buckets (Iron and Steel), Metal, Steel Sash, etc.**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Sept. 18 for delivering galvanized iron or steel buckets, glass, expanded metal, steel sash and galvanized-iron ventilators at navy-yard, Charleston, S. C. Apply for proposals to supply officer, navy-yard, Charleston, S. C., or to Bureau.

**Building Material.**—O. J. Williams, 219½ Clematis St., West Palm Beach, Fla.—Booklets, etc., from manufacturers of building material.

**Carts (Iron).**—A. J. Grant, Dunedin, Fla.—Street cleaners' galvanized-iron dump carts.

**Compressors (Air).**—See Mining Equipment.—Mammoth Mining Co.

**Compressor (Air).**—Hackley Morrison, 16½ N. 9th St., Richmond, Va.—Steam-driven air compressor with unloader and air tank; second-hand, in first-class condition.

**Concrete Forms.**—Gus E. Hauser, Conslt. Engr., Columbus, Miss.—To correspond with manufacturers of collapsible concrete forms for pipe.

**Concentrating Mill.**—Mammoth Mining Co., Hiram, Ga.—Concentrating mill for pyrites.

**Cotton Cloth, etc.**—P. P. Picot & Co., Ltd., Johannesburg, South Africa.—To represent manufacturers of: Leather cloth similar to Du Pont fabrikoid; heavy cotton piece goods, denims, etc. Mr. Picot leaving for New York by next boat; his address will be care National Bank of South Africa, Ltd., New York.

**Crane (Locomotive).**—Henry Potts & Co., 650 Real Estate Trust Bldg., Philadelphia, Pa.—Prices on 5-ton gasoline-driven locomotive crane.

**Cream of Tartar Substitute.**—Stevens & Co., Bagerstr. 9, Copenhagen, Denmark.—20 to 25 tons cream of tartar substitute; please send samples, marked "Of no value," in triplicate.

**Creasing Machine (Fiber).**—R. H. Seabury, care of Appomattox Trunk & Bag Co., Petersburg, Va.—Prices on fiber-creasing machine.—See Saws, etc.

**Crushing Rolls.**—Southern Graphite Co., Ashland, Ala.—Set second-hand 30x14 or 36x16 crushing rolls; good condition; give price and specifications.

**Dredge (Dipper).**—Florida Drainage & Construction Co., Pinellas Park, Fla.—Second-hand 2 or 2½-yd. dipper dredge; good condition; available for use in Florida; also wants attendant.

**Dredging.**—Board of Comms., W. B. Thompson, Pres., Port of New Orleans.—Bids to dredge and maintain specified depths of water at public wharves for period of 1 year from date beginning work under contract; specifications at office Bevereux O'Reilly, Engr., Suite 200, New Orleans Court Bldg.

**Dredging.**—City of Ennis, Tex., W. D. Farris, Mayor.—Bids to enlarge city lake; requires moving approximately 20,000 yds. dirt; specifications at City Hall.

**Drill.**—Mammoth Mining Co., Hiram, Ga.—Drill for pyrites mine.

**Electric-light Plant.**—Gulf Paper Mills Co., Box 1065, Mobile, Ala.—Small electric-light plant of 60 to 100 lights complete; give best price and when can ship.

**Electric Plants Equipment.**—H. J. Wobus, Illuminating Engr., 516 Fullerton Bldg., St. Louis, Mo.—Data and prices on material and equipment for municipal and isolated electric plants, including oil engines below 30 H. P., and generators below 25 K. W.

**Electrical Equipment.**—Town Clerk, Box No. 1, Kelford, N. C.—Specifications, prices and full information on electric storage batteries, sizes from 100 to 200 ampere hours; low voltage direct current generators (dynamos), from 1000 to 3500 watt; also switchboards, etc.

**Electrical Machinery.**—Greenbrier Colliery Co., J. Wade Bell, Secy.-Mgr., Sevy, W. Va.—Electric-power plant, motors, etc., costing about \$40,000.

**Engine.**—Mammoth Mining Co., Hiram, Ga.—Engine for pyrites plant.

**Engine (Gasoline).**—C. W. Morrison, Front Royal, Va.—New or good second-hand gasoline engine; 20 to 25 H. P.

**Engine (Hoisting).**—Mullins Lumber Co., Mullins, S. C.—Double-drum hoisting engine (without boiler) with engine cylinders 7x10 or larger; new or second-hand.

**Engines (Oil).**—H. J. Wobus, Illuminating Engr., 516 Fullerton Bldg., St. Louis, Mo.—Prices on oil engines below 30 H. P. (See Electric Plants Equipment.)

**Engine (Steam).**—Jewel Supply & Equipment Co., 34 S. Calvert St., Baltimore, Md.—Prices on 15 H. P. horizontal upright steam engine.

**Extractors.**—Extractors, care of Manufacturers Record, Baltimore, Md.—Prices on one or two 48-in. centrifugal extractors, over-driven, with copper baskets.

**Foundries.**—See Wheels and Axles.—John G. Gramling.

**Glass Sheets.**—See Metal, etc.—Navy Dept.

**Grading.**—Department of Streets and Sewers, E. D. Bass, Commr., Chattanooga, Tenn.—Bids until Sept. 17 for certain grading on Grand Drive, Cameron Hill addition; blank forms for proposals, contract and bond with specifications on application.

**Grinders, Mixers, etc.**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Sept. 25 for furnishing and installing 2 car pullers for core oven, cupola complete with arrester, etc., and delivering sprue cutter, double grinders, pan and mixer grinder, cutting-off machine, sand mixers and sand-blast equipment at navy-yard, Philadelphia. Apply for proposals to supply officer, navy-yard, Philadelphia, or to Bureau.

**Hair Pickers.**—Williams Mill Mfg. Co., Texarkana, Ark.—Data and prices on hair picker (Champion preferred) for renovating hair mattresses.

**Heaters.**—See Boiler, Plumbing Repairs, etc.—Treasury Department.

**Heating.**—Bureau of Standards, Washington, D. C.—Bids until Sept. 17 for installing direct radiation heating system in Gage Inspection Bldg.; plans and specifications on application to Supt. of mechanical plant.

**Heating.**—Xavier A. Kramer, Magnolia, Miss., and L. C. Franklin, Clarksdale, Miss., Pres. Board of Trustees.—Prices on heating for administration building, superintendent's home and 2 cottages at Mississippi Industrial Training School, Columbia.

**Heating.**—Board of Regents, Eastern Kentucky State Normal School, T. J. Coates, Pres., Richmond, Ky.—Bids until Sept. 22 for installing heating and ventilating system for library and training school building; drawings and specifications at office Board of Regents as above and C. C. and E. A. Weber, Archts., Citizens Bank Bldg., Cincinnati, O.

**Ice-cream Machinery.**—G. W. Lee, care of Lee Bros., Spartanburg, S. C.—Addresses of block and brick ice-cream machines.

**Key-seating Machine and Plate-bending Rolls.**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Sept. 18 for delivering key-seating machine and power plate-bending rolls at navy-yard, Washington. Apply for proposals.

**Lath Machinery.**—Hackley Morrison, 16½

N. 9th St., Richmond, Va.—Lath saw machine.

**Laundry Equipment.**—Orangeburg Chamber of Commerce and Agriculture, Orangeburg, S. C.—Data and prices on machinery for steam laundry.

**Lumber Sawing and Stacking.**—G. M. Knuckles Lumber Co., Viper, Ky.—To let contract for sawing and stacking not less than 3,000,000 ft. lumber; work to begin in not less than 60 days and manufacture 150,000 ft. per month.

**Machine Tools.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 2½x26-in. flat turret lathe, schedule 1469, delivery Hingham, Mass.; 2 motor attached, 14-in. by 6-ft. bed, complete geared head lathes; 3 motor-driven single spindle boring machines; 2 motor-driven single spindle vertical boring machines; 3 universal milling machines; one each motor-driven Nos. 2, 4 and 5 rod and dowel machines, schedule 1473; also motor-driven key-seating machine and power plate bending rolls, schedule 1467, delivery Washington; 24-in. vertical turret lathe, schedule 1468, delivery Newport, R. I.; motor-driven pipe, threading and cutting machine, schedule 1459, delivery Las Animas, Colorado.

**Machinery, etc.**—German Ribon Co., 60 Santander St., Barranquilla, Colombia.—New installation to equip machine shop, foundry and iron and copper works; to include machinery, furnaces, retorts, installations for boiler making, etc.

**Manganese and Carbon.**—Oscar A. De Long, Supt. Manatee Fullers Earth Corp., Ellenton, Fla.—De-polarizing compound of peroxide of manganese and carbon such as used for manufacturing dry batteries.

**Metals.**—See Wood and Metals.—Davis Mfg. Co.

**Metal, etc.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 5300 sq. ft. ribbed expanded metal; also glass sheets (ribbed, for ventilators, etc.); schedule 1470, delivery Charleston, S. C.

**Mining Equipment.**—Greenbrier Colliery Co., J. Wade Bell, Secy.-Mgr., Sevy, W. Va.—Equipment for coal mining; 1000 tons daily.

**Mining Equipment.**—Mammoth Mining Co., Hiram, Ga.—Pyrites mining equipment, to include drill, engine, boilers, air compressors, concentrating mill, etc.

**Mining Equipment.**—Elk Valley Mining & Development Co., Cunningham Rd., Joplin, Mo.—Will need mining machinery.

**Oil Refinery.**—Oil State Refinery Co., Enid, Okla.—Complete refinery plant of daily capacity 2500 bbls. oil.

**Paving.**—City of Miami Beach, Fla., J. F. Canova, Clerk.—Bids opened Oct. 1 to pave, grade, roll, scarify and oil Ocean Drive from south line Biscayne Ave. to north line Edmund Wilson tract; paving 18 ft. wide and 12 in. thick, of Dade County rock.

**Paving.**—City of Cumberland, Md., Ralph L. Rizer, City Engr.—Bids to pave and otherwise improve Washington St. between Allegany St. and Brooke Ave.; 2800 sq. yds. brick paving on 4-in. concrete foundation and 1-in. mortar bed; plans and specifications at office City Engr.; bids opened Sept. 10.

**Paving.**—City of Birmingham, Ala., Julian Kendrick, City Engr.—Bids to construct certain sanitary sewers, certain grading and concrete alley paving, grading, macadamizing, combined curb and gutter and sidewalk paving, asphaltic concrete paving, steel-armored corrugated concrete paving and smooth-surfaced concrete paving; specifications on file with Mr. Kendrick; bids opened Sept. 11.

**Paving.**—City of Lafayette, La., John Garmany, Clerk.—Bids until Sept. 20 to construct 2125 yds. concrete sidewalk, laid according to specifications.

**Paving.**—L. A. Washington, Commr. of Public Works, Paducah, Ky.—Bids until Sept. 15 to construct concrete sidewalks and gutters and granite curbing on both sides of Madison St., curbing on both sides Monroe St. to west curb line of 19th St. and on north side Madison St., 280 ft. west from west curb line of 19th St.; plans and specifications on application.

**Paving.**—Jas. W. Martin, Engineer's Office Sanitary and Drainage Commission, 39 Broad St., Charleston, S. C.—Bids until Sept. 25 to construct 8500 sq. yds. concrete or sheet asphalt pavement; information on application.

**Pipe.**—John G. Duncan Co., 306 W. Jackson Ave., Knoxville, Tenn.—800 ft. second-

hand 4½ and 5-in. pipe for pump. (See Pump.)

**Pipe.**—Fayetteville Ice & Mfg. Co., Fayetteville, N. C.—10-in. cast-iron pipe; 15,000 sq. ft. 2 and 3-in. insulation; new or second-hand.

**Pipe.**—H. H. Champlin, Enid Oil & Pipe Line Co., care of Chamber of Commerce, Enid, Okla.—Interested in prices on 4-in. pipe, for 18 mi. installation.

**Printing Equipment.**—News Printing Co., B. H. Glenn, Pres.-Mgr., Fort Pierce, Fla.—Prices on equipment for newspaper and printing plant; include presses, folders, type, etc.

**Pump.**—H. H. Champlin, Enid Oil & Pipe Line Co., care of Chamber of Commerce, Enid, Okla.—Prices on pump.

**Pump.**—John G. Duncan Co., 306 W. Jackson Ave., Knoxville, Tenn.—Dealers' cash prices, for quick delivery, on second-hand steam pump, in good condition, 4½ or 5-in. discharge; to pump water 220 ft. high.

**Pumping Equipments, etc.**—Navy Dept., Bureau Yards and Docks, Washington, D. C.—Bids until Sept. 17 for jet condensers and pumping equipments at various navy-yards; specifications (No. 2546) obtainable on application to Bureau.

**Road Construction.**—Blount County Commissioners, Oneonta, Ala.—Bids until Oct. 11 to grade and drain part of Huntsville Rd.; part of State Trunk Rd. No. 11 between Blountsville and Guntersville; 5.3 mi.; principal items are: 16,862 cu. yds. earth excavation, 50 cu. yds. rock excavation, 3 acres clearing and grubbing; plans and specifications at office State Highway Dept., Montgomery, Ala., and Probate Judge Blount County, Oneonta; further information from W. S. Keller, State Highway Engr., Montgomery.

**Road Construction.**—Road Comms., Dist. No. 2, Montgomery County, Winona, Miss.—Bids until Sept. 29 to construct 2½ mi. road leading from Alva and Providence Rd. to new bridge over Bogue Creek and from creek to town of Duck Hill, Miss.; plans and specifications with road commissioners, Duck Hill.

**Road Construction.**—McCracken County, Gus G. Singleton, Clerk County Court, Paducah, Ky.—Bids until Sept. 18 to reconstruct Mayfield-Paducah Rd. from city limits at Twenty-fifth and Broadway to Blandville Rd., 5900 ft.; plans and specifications at office engineer, Courthouse, Paducah, and Department of Public Roads, Frankfort; work involves 1074 cu. yds. earth excavation, 300 cu. yds. gravel, 1175 cu. yds. crushed limestone, 10,513 sq. yds. road surface.

**Road Construction.**—Highway Commission of Pickens County, E. G. Robinson, Chrmn., Carrollton, Ala.—Bids until Oct. 4 for grading, graveling, fencing, hauling and placing pipe and making concrete pipe, following roads: Carrollton and Pickens Rd., 7 mi.; State line to Pickensville, 10 mi.; Pickensville-Aniston Rd., 10 mi.; Reform-McShas Rd., 10 mi.; McShas State line road, 12 mi.; approximate quantities as follows: Grading, 150,000 cu. yds.; graveling, 40,500 cu. yds.; clearing and grubbing, 500 stations; pipe, 3500 lin. ft.; bridging, 100,000 ft.; plans and specifications on file at office Probate Judge, Carrollton, or may be had from Gus E. Hauser, Conslt. Engr., Columbus, Miss.

**Road Construction.**—Randolph County Comms., Wedowee, Ala.—Bids until Oct. 13 to grade, drain and surface with top soil 3½ mi. road, part of State Trunk Rd. No. 19, between Rocks Mills and Georgia State line; principal items as follows: 16,000 cu. yds. earth excavation, 1000 cu. yds. solid rock excavation and 5000 cu. yds. top soil; plans and specifications at office State Highway Dept., Montgomery, Ala., and Probate Judge, Wedowee; additional information from W. S. Keller, State Highway Engr., Montgomery.

**Road and Street Paving.**—Rockingham County Comms., R. E. Wall, Spray, N. C. Chrmn., and Town Comms., Leaksville, N. C., E. E. Richardson, Mayor.—Bids until Sept. 24 on improvements to road connecting Leaksville and Spray and a portion of Main St. in Leaksville; 1.1 mi.; bids desired on: (1) sheet asphalt paving; (2) tarvia macadam (penetration method); (3) tarvia macadam (mixed method); (4) warrentine paving; contractors invited to inspect site and examine specifications on file with Clerk County Comms., Wentworth, N. C.; J. N. Ambler, Conslt. Engr., Winston-Salem, N. C.

(Continued on Page 82.)

**W**E should be glad to have every reader buy as many copies of this pamphlet as he can judiciously distribute to his friends and acquaintances. We believe that every man who does this will be contributing to the welfare of the nation by arousing our people to a realization of the dangers which confront us and the reasons why we must prepare to meet them. We will be pleased to receive from every subscriber an order for not less than ten copies, and from many of them who can afford to do so an order for a thousand or more. The price is 10 cents a copy, regardless of the number ordered, whether one or one thousand. The money must accompany the order.

## AMERICA'S RELATION

TO THE

## WORLD WAR

Shall Our Nation Live or Perish?

As viewed by the Editor of the  
MANUFACTURERS RECORD

Printed by  
MANUFACTURERS RECORD  
Baltimore, Md.

10 CENTS PER COPY

## A Few of Many Letters Received

### PACKAGES PUBLISHING COMPANY,

W. R. Anderson, Publisher,  
Milwaukee, Wis.

I am glad indeed to receive copy of "America's Relation to the World War." I enclose herewith \$1.00 for ten additional copies, as I can make good use of them. I wish every man and woman in the United States could read this wonderful collection.

JAS. GOULD,  
Pine Bluff, Ark.

Enclosed find check for \$5.00 for fifty of your "America's Relation to the World War."

Allow me to say that if every paper in the United States had been as strong for preparedness as you have been in the last three years we would not be in war with Europe today. It has been the utter and disgraceful lack of unity on the part of our people that has caused this terrible crisis. I hope you will continue your sledge-hammer blows until the people of this nation wake up and realize the peril that confronts them.

### H. W. CLARK COMPANY,

Mattoon, Ill.

We are very much interested in the pamphlet that you have recently gotten out under the title of "America's Relation to the World War." It is our intention to have a number of these pamphlets distributed among our friends and customers. We appreciate the message you are delivering.

### CONTINENTAL STATE BANK,

S. E. Dunnam, Cashier,  
Quinland, Tex.

For the enclosed draft mail me 10 copies of your recent editorials in pamphlet form. I read and enjoyed your editorials from week to week as they came out, and believe that you have done our common country a signal service in writing and publishing them. The copies I am ordering are for distribution among some of my influential friends, who, perhaps, have missed your editorials and who have not realized the seriousness of the facts therein recited.

The writer has advocated for several years the necessity for a curb on some of the

radical papers which, I contend, have printed matter absolutely treasonable and which should be suppressed, and which would in no way interfere with a free press in the true sense.

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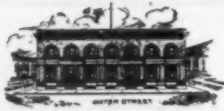
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Herewith please find check for \$14. Kindly credit our subscription account with \$4 and send us at your earliest convenience 100 copies of your pamphlet, "America's Relation to the World War."

It was with much pleasure that I noted in the current issue of your publication that some of Mr. Edmonds' writings were to be given in pamphlet form. I trust that this practice will be continued so that we may have more of his writings in such form, so that they may be preserved for future reference.

Mr. Edmonds is indeed "the watchman upon the mountain top," and we are glad to have his writings in this form to give to our friends and assist him in arousing the country to the danger with which we are confronted.

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## FINANCIAL NEWS

The MANUFACTURERS RECORD invites infor-  
mation about Southern financial matters,  
items of news about new institutions, divi-  
dends declared, securities to be issued, open-  
ings for new banks, and general discussions  
of financial subjects bearing upon Southern  
matters.

### FINANCIAL CORPORATIONS

Fla., Pensacola.—National Bank of Com-  
merce and the American National Bank have  
consolidated under the name of the Ameri-  
can National Bank, capital \$500,000; surplus  
\$35,000. E. R. Malone, Pres.; Morris Bear,  
J. B. McNeill and J. W. Malone, V.-Ps.;  
C. W. Lamar, Cashier; J. W. Andrews,

J. S. Leonard, M. J. Heinberg and Jos. P.  
Quinn, Asst. Cashiers.

Fla., West Palm Beach.—First National  
Bank of West Palm Beach, succeeding the  
Pioneer Bank of West Palm Beach, is char-  
tered: Capital \$100,000. E. M. Brelsford,  
Pres., and B. A. Maxfield, Cashier.

Ga., Hazlehurst.—Jeff Davis Banking Co.,  
capital \$50,000, is chartered. Organizers: L.  
Carter of Jessup; G. W. Varn, Valdosta;  
Lott W. Johnson, T. R. Knight, J. H. Boone  
and others of Jeff Davis County.

N. C., Badin.—A bank is reported being  
organized. S. H. Hearne is interested.

N. C., Kenly.—Farmers' Bank of Kenly is  
chartered with \$50,000 capital. Incorpora-  
tors: H. F. Edgerton, L. Z. Woodard and  
R. Godwin of Kenly.

Okla., Newkirk.—Security State Bank is  
chartered, capital \$30,000; surplus \$5000. P.  
S. Mason, Pres.; W. S. Cline, V.-P.; F. B.  
Midgley, Cashier, and George Midgley, Direc-  
tor. Business began Sept. 1.

S. C., Manning.—Clarendon Building &  
Loan Co. is chartered; capital \$84,000; R. C.  
Wells, Pres.; F. P. Burgess, V.-P., and H.  
G. Wilson, Secy.-Treas.

Tex., Apple Springs.—First State Bank,  
capital \$12,500, is authorized to do business.  
L. P. Atmar, Pres.; W. L. Hutson, Cash.

Tex., Bridgeport.—Bridgeport State Bank  
is authorized to do business, capital \$25,000.  
Guinn Williams, Pres.; L. D. Kirkpatrick,  
Cashier.

Tex., George West.—First State Bank of  
George West is authorized to do business;  
capital \$10,000. T. J. Lewis, Pres.; E. E.  
Bartlett, Cashier.

Tex., Quanah.—Security State Bank, con-  
version from National to State, is chartered;  
capital \$50,000; C. T. Watkins, Pres.; A. P.  
Pence, Acting V.-P.; T. C. Phillips, V.-P.;  
W. L. Bradley, Cash., and Core Lowe, Asst.  
Cash.

Va., Norfolk.—Stockholders of the Norfolk  
Bank for Savings and Trusts will meet  
Sept. 29 to act on the question of changing  
name to The Trust Company of Norfolk and  
increasing capital from \$100,000 to \$1,000,000.

### NEW SECURITIES

Ark., Eudora.—(Water, Sewer).—\$45,000 of  
5½ per cent. 20-year bonds have been pur-  
chased by the Southern Trust Co., Little  
Rock, Ark.

Ark., Dyer.—(School).—\$14,000 of bonds,  
Dyer Special School Dist., are voted. Ad-  
dress School Board.

Ark., Swifton.—(School).—Bids will be re-  
ceived until 2 P. M. Sept. 29 for not less  
than \$28,000 nor more than \$32,000 of 6 per  
cent. 5-15-year bonds Swifton Special School  
Dist. of Jackson County. Address Board of  
Directors of said school district.

Fla., Bartow.—(Road).—Southeastern part  
of Polk County is forming a special road  
district and will bond for \$300,000. Address  
County Commrs.

Fla., Bunnell.—(Waterworks).—Election  
will probably be called to vote on bonds.  
Address The Mayor.

Fla., Ft. Myers.—(School).—Bids will be re-  
ceived until 2 o'clock Sept. 18 for \$7000 of  
6 per cent. 20-year \$500 denomination bonds,  
Special Tax School Dist. No. 12, Lee County.  
Dated July 1, 1917. Jos. W. Sherrill is Supt.  
of Public Instruction of Lee County.

Fla., Lake City.—(Road).—Election is to be  
held in Columbia County Oct. 9 (not Sept.  
25, as previously reported) to vote on \$500-  
000 of 5 per cent. 5-30-year bonds, dated Dec.  
1, 1917. J. O. Green is Chrmn. Board County  
Commrs., and J. L. Markham, Clk.

Fla., Macclenny.—(Highway).—Bids will be  
opened in October for \$75,000 of bonds special  
road district No. 1, Baker County. Address  
County Commrs.

Fla., Ocala.—(Road).—Marion County is  
offering for sale sub-road bonds. P. H. Na-  
gent, County Clk. Further particulars will  
be found in Proposals Department.

Fla., Sarasota.—(Improvement).—Ordinance  
has been prepared providing for the issuing  
of \$18,000 of 6 per cent. 1-10-year bonds, dated  
Sept. 15, 1917, and maturing Sept. 15, 1918, to  
Sept. 15, 1927, inclusive. Harry L. Higel is  
Mayor.

Ga., Doerun.—(School).—Bids will be re-  
ceived until noon Sept. 25 for \$7500 of 5  
per cent. 30-year bonds. Address Clerk of  
Council. Further particulars will be found  
in the Proposals Department.

Ga., Nashville.—(Paving, School, Water,  
Sewer).—It is reported that election will  
probably be called to vote on bonds. Ad-  
dress The Mayor.



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Ga. West Point—(Street).—\$30,000 of 5 per cent. 30-year \$1000 denomination bonds, dated Sept. 1, 1917, and maturing Sept. 1, 1947, have been purchased at \$102.75 by Robinson-Humphrey-Wardlaw Co., Atlanta, Ga.

Ky. Maysville—(Sewer).—Election is to be held to vote on bonds. J. Wesley Lee is Mayor.

Ky. Shelbyville—(Sewer).—\$15,000 bonds to be voted on Nov. 6 are 15-year 5 per cents. L. Rothchild is Mayor.

La. De Ridder—(Courthouse, Jail).—Bids will be received until 2 P. M. Sept. 23 for \$175,000 of 5 per cent. Beauregard Parish courthouse and jail bonds. D. W. McFatter is Clk. Police Jury, and I. M. Bishop, Prest. Further particulars will be found in the Proposals Department.

La. Gretna—(Light, Water).—City proposes to issue bonds for electric-light plant and water-works. Address Leo A. Marrero.

La. Tallulah—(Levee).—Bids will be received until noon October 15 for \$250,000 of 5 per cent. \$100,000 denomination bonds Fifth Louisiana Levee Dist. T. P. Kell is Prest. Board of Commrs., and O. W. Campbell, Secy. Further particulars will be found in the Proposals Department.

La. St. Martinsville—(Road).—Bids will be opened Oct. 13 for \$300,000 of bonds of St. Martins Parish. Address Police Jury.

Miss. Lexington—(Road).—Bids will be received until noon October 1 for \$15,000 Pickens-Richland Special Road Dist. and \$5,000 of Special Road Dist. No. 2, Holmes County, 6 per cent. \$500 denomination bonds. James H. Fuqua is Clerk Board of Suprvs.

Miss. Macon—(School).—Notice is given that Cliftonville Consolidated School Dist., Neshoba County, proposes to issue \$3000 of bonds. Thos. McHenry is Prest. Board of County Suprvs., and John A. Tyson, Clerk.

Miss. Meridian—(Ice Plant).—Election is soon to be held to vote on \$150,000 of bonds. J. M. Dabney is Mayor.

Miss. Meridian—(School).—Bids will be received until October 1 for \$3000 of 6 per cent. \$500 denomination bonds Oakland Heights Separate School Dist., Lauderdale County. Dated April 1, 1917; maturity April 1, 1922 to 1937, inclusive. W. R. Pistole is Clerk Board of County Supervisors.

Miss. Prentiss—(School).—\$4000 of bonds have been purchased at \$125,000 premium by the Bank of Blountsville.

Mo. Doniphan—(Road).—Election is to be held in Ripley County October 2 to vote on \$20,000 bonds. Address County Commrs.

Mo. Excelsior Springs—(Bridge, Park).—Bids received until 8 P. M. Sept. 13 for \$12,500 of not exceeding 5½ per cent. 20-year bridge and public park improvement bonds. Address City Clerk.

Mo. Galena—(Water).—Special election is to be held Oct. 2 to vote on \$100,000 of bonds. Address The Mayor.

N. C. Asheville—(Funding).—\$196,000 of 5 per cent. \$1000 denomination serial bonds, dated Sept. 1, 1917, are to be issued. Address F. L. Conder, Secy.-Treas. J. E. Rankin is Mayor.

N. C. Belmont—(Water, Sewer).—September 27 town will sell, publicly, \$20,000 water and \$20,000 sewer 5½ per cent. 40-year bonds. A. C. Jones is Atty., Gastonia, N. C. Further particulars will be found in the Proposals Department.

N. C. Charlotte—(School).—\$12,000 of 6 per cent. 20-year serial school building bonds Paw Creek School Dist., Mecklenburg County, are voted. Address J. M. Matthews.

N. C. Durham—(Water, Funding, Sewer).—Bids will be received until October 11 for \$30,000 water, \$80,000 funding and \$50,000 sewer 5 per cent. bonds. Address Board of Aldermen.

N. C. Gastonia—(School).—On October 10, at private sale, Gaston County will sell \$5,000 of 5½ per cent. 20-year bonds, Lowell Graded School Dist. S. N. Boyce, C. E. Hutchison and J. H. Rudisill, Board of Education.

N. C. Gastonia—(School).—Election is to be held Oct. 9 to vote on \$25,000 of 5½ per cent. 20-year bonds, Lowell Graded School Dist. No. 1, South Point Township, Gaston County. C. B. Carpenter is Register of Deeds.

N. C. Lenior—(County Home, Road, Bridge).—Bids will be received until 10 A. M. Sept. 15 by John M. Crisp, Clerk Board of Commrs., Caldwell County, for \$38,000 road and bridge and \$12,000 county home bonds, maturing Jan. 1, 1922, to 1946, inclusive. Denomination \$1000. Interest not to exceed 6 per cent.

N. C. Louisburg—(Road).—Election is to

be held October 9 in Franklin County to vote on \$20,000 of bonds. Jno. D. Alston is Chrmn., and J. B. Yarborough, Clerk.

N. C. Raleigh—(Street).—Bids will be received until noon Sept. 17 for \$50,000 of 5 per cent. \$1000 denomination bonds, dated Sept. 1, 1917, and maturing 1918 to 1932, inclusive. Jas. I. Johnson is Commr. of Public Accounts and Finances.

N. C. Louisburg—(Street).—Bids will be received until 2 P. M. Sept. 20 by L. L. Joyner, Mayor, for \$135,000 of 6 per cent. 8½-year average street bonds.

N. C. Wilmington—(Refunding, Street).—Bids will be received until 2 P. M. Sept. 20 for \$75,000 of 6 per cent. refunding bonds, maturing June 1, 1919, to June 1, 1928; also \$25,000 of 2-26-year serial street-improvement bonds. Thomas D. Meares is City Treasurer.

N. C. Wilmington—(Funding).—Ordinance has been prepared providing for the issuing of \$75,000 of 6 per cent. bonds, maturing June 1, 1919, to June 1, 1928. Thos. D. Meares is City Clerk and Treas.

Okla. Anadarko—(School).—Star Dist., Caddo County, has voted bonds. Address School Board.

Okla. Binger—(School).—Bonds are reported voted. Address School Board.

Okla. Boynton—(Sewer).—Ordinance has been passed authorizing issue of \$20,000 bonds. Address J. F. Wolfinger.

Okla. Chandler—(Funding).—Ordinance is reported passed providing for the issuing of \$76,000 of bonds to fund outstanding indebtedness. Address C. D. Hicks.

Okla. Durant—(Fire Dept.).—Election is to be held in near future to vote on \$12,000 of bonds. Address The Mayor.

Okla. Elk City—(School).—Elk City School Dist. contemplates, it is reported, issuing high school bonds. Address School Board.

Okla. Hilderton—(School).—\$40,000 of bonds are voted. Address School Board.

Okla. Sand Springs—(Fire Equipment, Sewer).—Election is soon to be held to vote on bonds for sewer system and fire-department equipment. Address The Mayor.

Tenn. Lebanon—(Light, Water, Power).—Election is to be held October 6 to vote on bonds to purchase plant of the Lebanon Light & Power Co. Andrew B. Martin is Chrmn. Board of Commrs.

Tenn. Munford—(Street).—\$5000 of bonds have been purchased by the Citizens Bank & Trust Co., Munford.

Tex. Austin—Bonds approved by Atty.-Gen.: \$4000 of 5 per cent. Leon County Common School Dist. No. 26; \$1000 of Common School Dist. No. 11; \$1000 of Common School Dist. No. 20, Nolan County, 5 per cent. 20-year; \$1250 of 5 per cent. 20-year Eastland County Common School Dist. No. 41; \$2500 of McLennan County Common School Dist. No. 44; \$6000 of Rusk Independent School Dist.; \$6500 Travis County Common School Dist. No. 64.

Tex. Gilmer—(Road).—Election is to be held Sept. 22 to vote on \$25,000 Rhonessboro Dist., Upshur County, bonds. Address County Commrs.

Tex. Houston Heights—(School).—Bids will be received until 8:35 P. M. Sept. 17 for \$225,000 of 5 per cent. 20-40-year bonds. J. D. Marion is Mayor.

Tex. Sabinal—(Script).—Ordinance has been passed providing for the issuing of \$16,000 of 6 per cent. 40-year script for digging and casing deep well. It is stated the script will soon be on the market. Address The Mayor.

Tex. San Angelo—(Road).—Election is to be held in Tom Green County to vote on \$250,000 of bonds. Address County Commrs.

W. Va. Edgewood, Wheeling—(Paving).—\$54,000 of 6 per cent. 10-year \$500 denomination bonds have been purchased at \$1081 premium by German Bank, Wheeling.

#### FINANCIAL NOTES

The date for the annual convention of the Investment Bankers' Association to be held this year at Baltimore has been changed from October 1, 2 and 3 to November 12, 13 and 14. It is stated that the change was made because of the expected Liberty Loan campaign during October.

Norfolk (Va.) Bank for Savings and Trusts proposes to increase its capital stock from \$100,000 to \$1,000,000 and to change its name to The Trust Company of Norfolk. There is a surplus of \$200,000. The directors have recommended the changes and the stockholders will meet to approve the plan on Sept. 20. H. M. Kerr is Prest.; C. W. Grandy, Jr., Vice-Prest., and W. W. Vicar, Cashier.

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A. H. S. POST, President

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## MACHINERY, PROPOSALS AND SUPPLIES WANTED

(Continued from Page 78.)

**Sash (Steel).**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish sash, steel in combinations and units, sliding doors; schedule 1470; delivery Charleston, S. C.

**Saws, etc.**—R. H. Seabury, care of Appomattox Trunk & Bag Co., Petersburg, Va.—To buy (in good order) Mershon band re-saw, planer, double surfacer, small band saw, cut-off and rip saw table, flat varnisher and fiber-creasing machine.

**Sawmill.**—Chas. A. McLean, 412 Citizens Bank Bldg., Norfolk, Va.—8-ft. left-hand band sawmill of late design and standard make.

**Sawmills (Cedar Wood, etc.).**—See Veneer Mill, etc.—M. C. B. McGlathery.

**Seawall.**—Town of Lake Worth, Fla., A. H. Thomas, Clerk.—Bids to construct 2000 ft. seawall, including spoil bank, general fill, rock facing of embankment, landing dock and railing around margin of embankment; approximate quantities as follows: Quantities of material in spoil banks, 4340 cu. yds.; general fill, 72,990 cu. yds.; rock facing, 1050 cu. yds.; landing dock, length not yet determined; guard railing, 2180 lin. ft.; plans, specifications and pro-

files at office Z. F. Potter, City Engr., Town Hall; bids opened Sept. 11; Alex. Drake, Mayor.

**Sewerage Equipment.**—Xavier A. Kramer, Magnolia, Miss., and L. C. Franklin, Clarksdale, Miss., Prest. Board of Trustees.—Prices on sewerage equipment for number of buildings at Mississippi Industrial School, Columbia.

**Sewer Construction.**—City of Birmingham, Ala., Julian Kendrick, City Engr.—Bids to construct certain sanitary sewers, certain grading and concrete alley paving, grading, macadamizing, combined curb and gutter and sidewalk paving, asphaltic concrete paving, steel armored corrugated concrete paving and smooth surfaced concrete paving; specifications on file with Mr. Kendrick; bids opened Sept. 11.

**Sewer Construction.**—Sewerage Commission, E. Leroy Heard, Secy., Hagerstown, Md.—Bids until Sept. 29 to construct main and lateral sewers in certain streets and alleys; 17,000 lin. ft. sanitary sewers from 8 to 36-in. diam., with all manholes, foundations and appurtenances; also 10,000 lin. ft. house connections, 6 in. in diam., with all necessary appurtenances; specifications and blank forms from Commission.

**Shears (Slitting; Plate).**—Henry Potts & Co., 650 Real Estate Trust Bldg., Philadelphia, Pa.—Prices on slitting shear to take up ¼-in. plates; also plate shear, maximum capacity 60x½-in. plates; shears driven by motor or steam.

**Shovel (Steam).**—Franklin Soapstone Products Corp., Roanoke, Va.—First-class second-hand steam shovel; ½ to ¾-yd. dipper; mounted on 36-in. gauge tracks.

**Shuttle Blocks.**—J. C. Miller, Contr., Campbellsville, Ky.—Prices on shuttle blocks manufactured from persimmon or dogwood timber.

**Steel Angles and Plates, Pig-iron, etc.**—Panama Canal, Benedict Crowell, General Purchasing Officer, Washington, D. C.—Bids until Oct. 1 on steel angles and plates, pig-iron, electric wire, fans, fixtures, bells and fittings, dies, chairs, steel dressers, utensil stands, office pins and paper; blanks, etc., relating to circular (No. 1168) obtainable at this office or offices Asst. Purchasing Agents, 21 State St., New York; Audubon Bldg., New Orleans, and Fort Mason, San Francisco; also from United States Engr. offices throughout United States.

**Tank (Cypress).**—Mullins Lumber Co., Mullins, S. C.—20,000-gal. cypress tank; new or second-hand.

**Tower (Water).**—Howe Water-works, J. L. Blackburn, Secy., Howe, Tex.—In market for tower.

**Trailers (Truck).**—N. H. Carter, Wallace, N. C.—Trailers for trucks.

**Tubing (Steel), etc.**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Sept. 25 for delivering screw steel, special section steel, afterbody shells and seamless steel tubing at naval torpedo station, Newport, R. I. Apply for proposals to navy purchasing office, Newport, or to Bureau.

**Ventilating.**—See Heating.—Board of Regents, Eastern Kentucky State Normal School.

**Ventilators (Galvanized Iron).**—Navy Department, Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 3 galvanized iron ventilators, schedule 1770, delivery Charleston, S. C.

**Veneer Mill, etc.**—M. C. B. McGlathery, 211 N. 2d St., Gadsden, Ala.—Correspondence with proprietors of veneer mills and color mills.

**Water-wheel (Steel Overshot).**—D. F. C. Harry, Grover, N. C.—Prices on steel overshoot water-wheel.

**Water Equipment.**—Xavier A. Kramer, Magnolia, Miss., and L. C. Franklin, Clarksdale, Miss., Prest. Board of Trustees.—Prices on water equipment for number of buildings at Mississippi Industrial Training School, Columbia.

**Water-works.**—City of Throckmorton, Tex., R. Brittain, Mayor.—Bids until Sept. 14 for material and construction of water system; approximate quantities as follows: 25,000 cu. yds. earth dam; 4800 ft. 9-in. vitrified sewer pipe; 3000 ft. 6-in. cast-iron pipe; 12 hydrants; 5 valves; pumping machinery; 50,000-gal. reinforced concrete water tower; alternate steel water tower; plans and specifications from Henry Exall Brock, Const. Engr., Dallas, and Mayor, Throckmorton.

**Weather-vanes.**—Cohoon Bros., Orlando, Fla.—Names and addresses of manufacturers of weather-vanes.

**Wheels and Axles.**—John C. Gramling, Box 11, Miami, Fla.—Correspondence relative to placing order for manufacture of two wheels and axles for a tractor; will furnish specifications.

**Wood and Metals.**—Davis Mfg. Co., 407 S. Grand St., Enid, Okla.—Correspondence with manufacturers in metal and wood materials, and with dealers in wood and metal. (Is establishing plant for manufacture of rotary grain thresher and separator.)

**Woodworking Machinery.**—See Saws, etc. R. H. Seabury.

Wm. F. Bockmiller, Pres.

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### RAILWAYS

Fla., Jacksonville.—Jacksonville & Seashore Electric Association is reported organized to build electric railway from Jacksonville to several resorts on the seacoast, about 20 to 30 mi. M. B. Jennings, Prest.; St. Elmo W. Acosta, Secy.; others interested being Judge H. B. Phillips, W. R. Rannie, Telfair Stockton, P. J. Mundy, E. W. Waybright, F. O. Miller and Sam Marshall.

Ga., Brunswick.—Application to issue \$100,000 of receivers' certificates is reported filed in the United States Court at Savannah on behalf of the Georgia Coast & Piedmont R. R. Part of the proceeds will be devoted to improvements. F. D. Aiken, C. H. Levy and H. L. Cohen are the receivers at Brunswick.

Ga., Savannah.—The Midland Railway, George M. Brinson, Prest., contemplates issuing \$1,000,000 of bonds for improvements.

La., Alexandria.—Louisiana Railway & Navigation Co. is building a connection between its main line and Camp Beauregard, the army cantonment near Alexandria. Irvin McGinnis has the grading contract.



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19th YEAR

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FORK UNION, VA.

N. C., Sylva.—Tennessee & Southeastern Railway Co., capital \$25,000 subscribed, has been chartered to take over the charter and rights of the South Atlantic & Western Railroad. Incorporators: C. Boice, Richmond, Va.; J. W. Bell, Abingdon, Va.; Coleman C. Cowan of Sylva, N. C.

Okla., Enid.—Atchison, Topeka & Santa Fe Ry. is reported considering construction of an extension from Enid eastward to Hedrick, about 40 or 45 mi., making a cross-country connection of two of its lines, which might be further extended 25 mi. to Ralston to connect with the line now building from Owen to Ralston. C. F. W. Felt, Chicago, Ill., is Ch. Engr. of the system.

Tex., Waco.—Texas Electric Co. is reported to have begun work upon its two single-track extensions to Camp McArthur, about 5 mi.

Va., Pulaski.—Buckeye Lumber Co., which is rebuilding the Altoona narrow-gauge railroad, will extend the line about 6 mi. to lumber camps.

W. Va., Gauley Bridge.—According to a press report it is the intention of the Kanawha & Michigan Railway, which is building a connecting line from Gauley Bridge to Belva, about 5½ mi., to also build an extension from Swiss, the eastern terminus of the line to be connected, on to Summersville, W. Va., about 15 or 20 mi. C. M. McVay is Chief Engr. at Charleston, W. Va.

### STREET RAILWAYS

Okla., Okmulgee.—Okmulgee Traction Co., capital \$100,000, has been chartered. Incorporators, Elmer E. Feltzel and A. K. Feltzel of Tulsa, Okla.; M. M. Simons of Okmulgee, Okla., and R. Thurlow Bartlett and E. M. Buxton of Portland, Me.

### INDUSTRIAL NEWS OF INTEREST

#### Office Opened.

R. D. Shearer, formerly of Knoxville, Tenn., and later engineer for the Appalachian Training School at Boone, N. C., and the Boone Fork Lumber Co. at Shulls Mills, N. C., has opened an office in the Burrow Bldg., Johnson City, Tenn., for the practice of engineering, specializing in hydro-electric developments and automatic power-plant operation.



Main Street, Lewisburg, Pa. Brick pavement filled with Barrett's Paving Pitch.

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**T**HE joints of this pavement are filled with Barrett's Paving Pitch.

When the bricks contract in cold weather the pitch sinks a little lower in the joints, but never lets go of the bricks nor permits any crack or break in its waterproof seal.

That guarantees the foundation from frost or washout.

When the bricks expand on a hot day there is no pressure against curbs or manholes or street-car rails, for the pitch surrounding each brick is merely squeezed a little and rises slightly in the joints.

If some outside agency, such as settlement over a cut in the pavement not properly restored, cracks the waterproof seal, the pitch reunites and presently closes the gap automatically.

Pitch will last as long as the brick. It is imperv-

ious to the attack of water or weather or automobile drippings.

When, after twenty or thirty years, the bricks are finally worn out and taken up to be replaced, the pitch will still be found clinging snugly to the brick.

Good municipal engineering demands that every joint be an expansion-joint. Curbs out of line, cracks, breaks and blow-outs, and troublesome expansion-joints are not unforeseeable misfortunes, but are the inevitable results of an attempt to ignore nature's laws.

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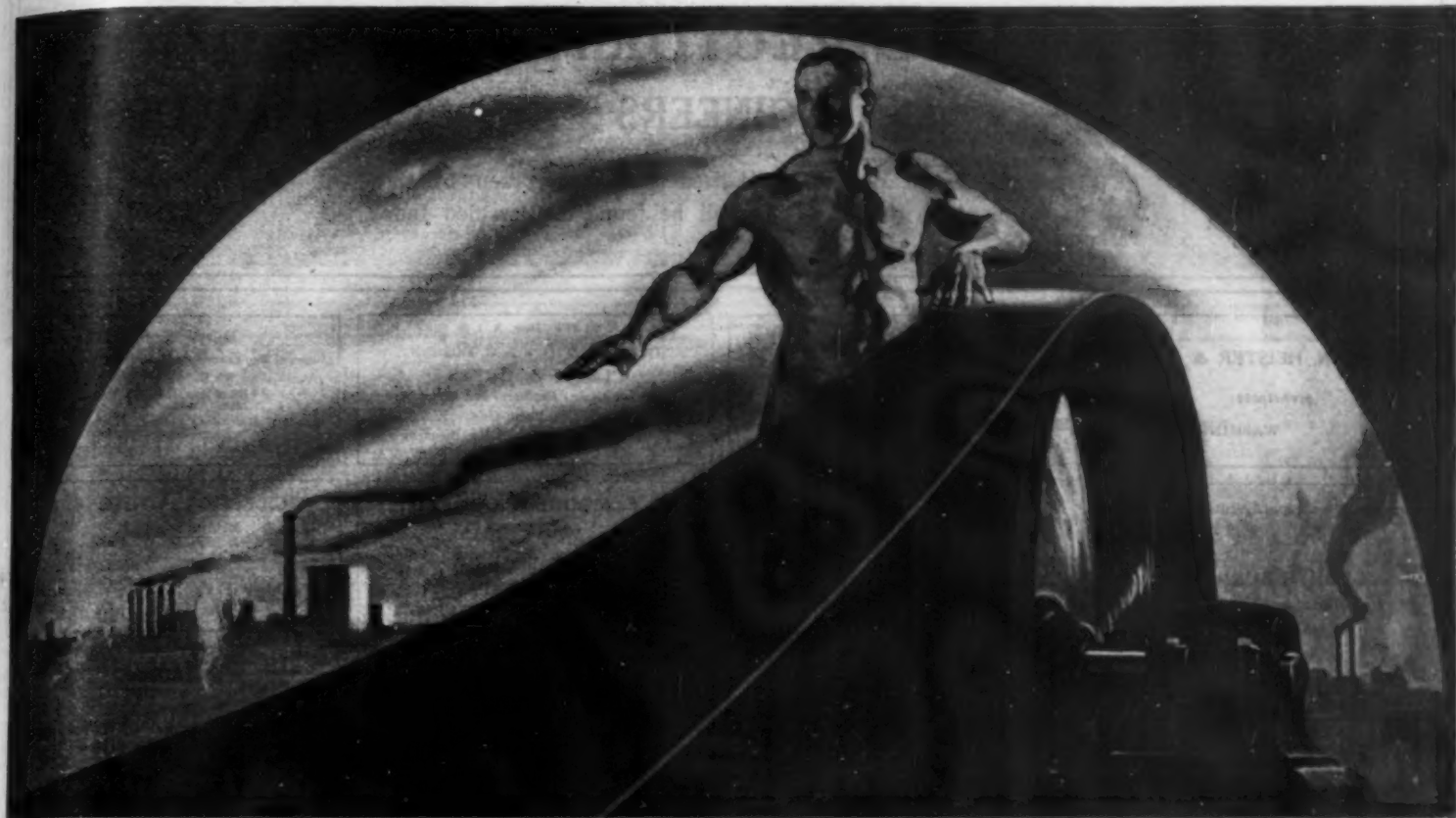
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\* \* \*

In the transmission of power, years passed before men grew actively dissatisfied with what they had.

Originally some belts were made of raw-hide. But they slipped and stretched inordinately.

So they were replaced with carefully selected leather heavily tanned. Layers of it were glued or riveted together as greater strength was demanded

Much of the original belting was made of canvas, a number of plies being cemented together with rubber gum.

But some of these belts were so heavy that they wasted power through sheer weight.

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All of the early belts stretched, slipped, wasted power, and caused frequent shut-downs and delays.

Yet for a long time men thought them good enough.

\* \* \*

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Blue Streak Belts do surpass it.

\* \* \*

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#### MINES EFFICIENCY CO.

*Geological, Mining and Metallurgical Engineering.*

Examination and Exploration of Mineral Properties. Design and Erection of Concentration Plants. Manganese and Iron Ore Problems a Specialty.  
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Research, consultation and design of plants in connection with Chemical and Hydrometallurgical processes, prevention of stream pollution, trade waste treatment, etc.  
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ESTABLISHED 1886

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We test foundations for buildings, bridges and dams. We prospect coal and mineral lands in any part of North and South America.

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PENNSYLVANIA DRILLING COMPANY

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## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

#### Sales Office Opened.

The Asbestos Protected Metal Co. of Pittsburgh announces the opening of a sales office in the Union Central Bldg., Cincinnati, under the direction of J. C. Lathrop.

#### Company Changes Its Name.

The Federal Elevator Co., 1706 North 12th St., St. Louis, Mo., is the new name of the American Electric Machine & Elevator Co. Not only is the new name more convenient from the standpoint of brevity, but it will prevent any possible confusion because of other companies with somewhat similar names. The address of the company is the same, the ownership and management is the same, John T. Burke being president and treasurer, William A. Krause, vice-president, and James J. Gallagher, secretary, these men being the officers of the previous company and continuing under the new name in the same capacities.

#### Sale of Manufacturing Plant.

It is announced that the U. S. Bobbin & Shuttle Co. has decided to sell the properties known as the James Baldwin Co. division, at Manchester, N. H., at public sale on Thursday, September 20, at 1.30 P. M. on the premises. It is further stated that the sale will be unrestricted and unprotected, and that it will take place at the time and place announced regardless of any weather conditions. The property includes some six acres of land, three complete and independent sets of manufacturing buildings, and a first-class water-power controlling the two sides of the Piscataquog River, with a combined river frontage of 2283 feet. The sale will be conducted by J. E. Conant & Co., auctioneers, of Lowell, Mass.

#### Warwick Steel & Iron Breaking Co.

Frank Dallett, C. C. Bland and F. A. Dutton recently organized the Warwick Steel & Iron Breaking Co., Inc., with main offices in the Harrison Bldg., southwest corner 15th and Market Sts., Philadelphia, Pa., with an up-to-date plant at Warwick, Pa., which includes facilities for breaking up large and unwieldy pieces of iron, steel, etc. The company proposes to handle scrap of all kinds and dismantling propositions of any size will likewise be considered. The incorporators are well known throughout the trade, and success for them is considered as assured. Mr. Dallett, who is of the firm of Dallett & Co., Philadelphia, has been in the equipment line of business for more than thirty years. He is president and treasurer of the new company. Mr. Bland is vice-president and manager, and Mr. Dutton is secretary.

#### TRADE LITERATURE

##### Speaking of Tanks.

A bulletin listing special offerings in pressure tanks, storage tanks, new tanks, car, acid and elevated tanks, stand pipes, reservoirs and vats has been issued by the Walter A. Zelnicker Supply Co., St. Louis. It is No. 224 of the Zelnicker series.

##### General Electric Bulletin Indexes.

The publication bureau of the General Electric Co., Schenectady, N. Y., has issued two indexes, one covering descriptive bulletins and sheets, and the other supply part bulletins. The subject and number of each bulletin is mentioned, and bulletins which are out of print are denoted by a star. Bulletins still in stock may be obtained through the nearest sales office of the company. A complete list of offices is presented on the last page of each index.

##### A New Electric Motor.

Form Q induction motor, 2 and 3 phase, squirrel cage type, 60 cycle, 1 to 300 H. P., is the subject of Bulletin No. 180 issued by the Crocker-Wheeler Co., Ampere, N. J., with offices at 30 Church St., New York, and also in other cities. It is stated that "the mechanical construction of Form Q motors

is rugged and simple, the rigid frames and end shields, heavy shafts, liberal-sized bearings and large air gaps enabling them to stand up under severe service conditions." The long and successful experience of the company has resulted, it is further said, "in a design combining desirable qualities in such a way as to meet the requirements of industrial motor applications."

#### An Important Business Directory.

Dockham's Jobbing Trade and Department Stores Report and Directory for 1917 has just been issued. It gives the names and addresses of more than 4100 buyers of clothing, cloth, dry goods, notions, hats, millinery, men's furnishings, etc. Its contents are arranged alphabetically by States, cities, firms and streets, and numbers are given where necessary. It covers the United States and Canada, and is substantially gotten up. The publisher is the Dockham Publishing Co., 6 Beacon St., Boston.

#### Industrial Plant Lighting.

Two new books have just been issued by the Westinghouse Lamp Co., 165 Broadway, New York, which are radical departures in advertising. One of them is "Successful Industrial Management," by Harry Franklin Porter, and the other is "Increasing and Improving Production," by R. T. Kent. Each writer lays emphasis upon the importance of perfect lighting of industrial plants to obtain perfection of output, to save time, to avoid accidents, etc., etc., but there is also much other excellent advice and suggestion to increase plant efficiency and make better, healthier and happier employees. The books are handsomely bound in cloth and are worthy of a place in every business man's library.

#### 1918 Year Book Issued.

The Western Electric Co., which three years ago announced its purpose to issue its supply catalogue annually, has again distinguished itself as a pioneer by the publication of its 1918 year book in the early fall of 1917. One reason for this is that the supply of 1917 books is exhausted, and the other is a demand from many quarters for the publication of a book early in September to be used by buyers in giving orders for fall and winter stocks. The 1918 book follows the plan of uniform list price and basic discount begun by the company three years ago, but on certain standard lines manufacturers' list prices are shown for the convenience of anyone preferring to buy on the manufacturers' discount, or who desires an independent means for checking invoices. The book has 1160 pages and is very complete.

#### Water Pipe Made of Wood and Steel.

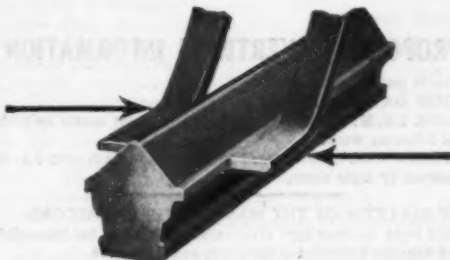
An extremely interesting book concerning the many merits of "Michigan" combination steel and wood water pipe has been issued by the Michigan Pipe Co., Bay City, Mich. Introducing the subject the company remarks that many erroneous ideas have been held by those unfamiliar with the actual facts as to the value of wooden pipe for conveyance of liquids and it has included in this publication historical data extending over 300 years to demonstrate the truth about this product. There are also various tables on water supply and other technical material which have been found invaluable because of the breadth of information they contain and also because of their convenient form. The business was established in 1880 and it is stated that some of the original pipe is still in use after 44 years of continuous service. How long wooden pipe will last is shown by the fact that elm pump logs as water pipes were laid in London in 1613, and some of them were dug up in 1902 and found to be in good condition after the lapse of 249 years. The interior of "Michigan" wood pipe is made of wood and steel and the outside is a heavy coating of asphaltum and sawdust.

(Continued on Page 91.)

# War Economy in Reinforcing Steel

High prices and scarcity of reinforcing steel make it essential to design economically, because a pound of steel wasted or an hour's labor lost is serious. Today, more than ever before, Kahn Trussed Bars are essential for economy.

Compare by actual figures the Kahn Bar design and a loose-stirrup design. You will find, first, a marked saving in the amount of steel and a larger saving in the amount of labor. This saving amounts to many times the slight extra cost required for the shop fabrication of Kahn Bars. The figures before us show a net saving in cost of steel in place of over



NOTE RIGIDLY CONNECTED SHEAR MEMBERS.

12%. Besides, there is an additional saving in time.

The money saving is only one of the features of Kahn Bars. Rigid connection of shear members also assures increased strength, as shown by tests, better fire protection and insurance against careless workmanship. If you are building today, you should give first consideration to Kahn Bars.

Our products cover the field of reinforced concrete completely, including in addition to Kahn Trussed Bars, Rib Bars, Column Hooping, Rib Metal, Floretyles, Hy-Rib, Kahn Mesh, etc. If you are interested in building, write for our suggestions and literature.



## Reinforcing Steel Division TRUSSED CONCRETE STEEL CO.

YOUNGSTOWN, OHIO

REPRESENTATIVES IN PRINCIPAL CITIES

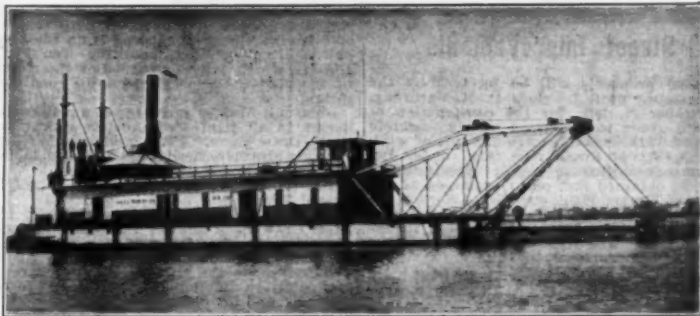


KAHN TRUSSED BAR.

## Atlantic, Gulf and Pacific Co.

NEW YORK MANILA, P. I. HOUSTON, TEX.

Contractors to the Federal Government



**Dredging and Filling, Land Reclamation,  
Canals and Port Works**

**River and Harbor Improvements, Deep  
Waterways and Ship Channels**

We are especially equipped to execute all kinds of dredging, reclamation, and port works in Southern waters.

Correspondence invited from Southern officials and corporate and private interests everywhere.

**Largest Plant**

**Longest Experience**

## Sterilize Your Water Supply

with

## Liquid Chlorine

For 17 to 50 cents a million gallons absolute protection can be obtained—

*provided  
the chlorine is  
properly controlled*

## “W. & T” Apparatus

for Chlorine Control excels because it has  
**No Moving Parts. No Float to Stick.**  
**You See the Chlorine Flowing.**



**Wallace & Tiernan Co., Inc.**  
137 Centre Street, New York City  
CHICAGO, ILL. DALLAS, TEX. SAN FRANCISCO, CAL.



# PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close October 1, 1917.

**PROPOSALS FOR STEEL ANGLES AND**  
Plates, Pig Iron, Electric Wire, Fans, Fixtures, Bells and Fittings; Dies, Chairs, Steel Dressers, Utensil Stands, Office Pins and Paper. Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 A. M. October 1, 1917, at which time they will be opened in public, for furnishing the above-mentioned articles. Plans and information relating to this circular (No. 1168) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State St., New York City; Audubon Bldg., New Orleans, La., and Fort Mason, San Francisco, Cal.; also from the United States Engineer Offices in the principal cities throughout the United States. **BENEDICT CROWELL**, Major, E. O. R. C., U. S. Army, General Purchasing Officer.

Bids close October 23, 1917.

**TREASURY DEPARTMENT**, Supervising Architect's Office, Washington, D. C., September 11, 1917. Sealed proposals will be opened in this office at 3 P. M. October 23, 1917, for the construction of the United States postoffice at Andalusia, Ala. Drawings and specifications may be obtained from the custodian of the site at Andalusia, Ala., or at this office, in the discretion of the Supervising Architect. **JAS. A. WETMORE**, Acting Supervising Architect.

Bids close October 15, 1917.

**TREASURY DEPARTMENT**, Supervising Architect's Office, Washington, D. C., September 4, 1917. Sealed proposals will be opened in this office at 3 P. M. October 15, 1917, for the construction of the United States postoffice at Waynesboro, Va. Drawings and specifications may be obtained from the custodian of the site at Waynesboro, Va., or at this office, in the discretion of the Supervising Architect. **JAS. A. WETMORE**, Acting Supervising Architect.

Bids close September 19, 1917.

**TREASURY DEPARTMENT**, Supervising Architect's Office, Washington, D. C., September 5, 1917. Sealed proposals will be opened in this office at 3 P. M. September 19, 1917, for repairs to plumbing, new heating boiler, etc., for the United States postoffice, Anderson, Ind., in accordance with drawings and specifications, copies of which may be had at this office or at the office of the custodian, Anderson, Ind., in the discretion of the Supervising Architect. **JAMES A. WETMORE**, Acting Supervising Architect.

Bids close September 23, 1917.

**TREASURY DEPARTMENT**, Supervising Architect's Office, Washington, D. C., August 31, 1917. Sealed proposals will be received at this office until 3 P. M. September 23, 1917, and then opened, for tent houses for the U. S. Marine Hospital, Key West, Florida, in accordance with the specification and drawings, copies of which may be had at the office of the custodian of the station, or at this office, in the discretion of the Supervising Architect. **JAS. A. WETMORE**, Acting Supervising Architect.

Bids close September 23, 1917.

**TREASURY DEPARTMENT**, Supervising Architect's Office, Washington, D. C., August 31, 1917. Sealed proposals will be opened in this office at 3 P. M. September 23, 1917, for a refrigerating plant in the United States Marine Hospital at Key West, Florida, in accordance with the specification, copies of which may be had at this office, or at the office of the custodian, in the discretion of the Supervising Architect. **JAS. A. WETMORE**, Acting Supervising Architect.

Bids close September 15, 1917.

## \$100,000 5% Bonds

TO BE ISSUED IN DENOMINATION OF \$1000.00.

Raleigh, N. C.  
The Board of Commissioners for the County of Wake, North Carolina, will receive sealed bids for 5 per cent. thirty-year funding bonds for the County of Wake, not to exceed \$100,000. Bids to be opened at 12 o'clock M. September 15, 1917.

Proposed to be issued by the County of Wake, State of North Carolina, to take up the floating debt of the county. Place for payment of principal and interest to suit purchaser. Issued under authority of General Law, Section 1318, Code of 1903. Certified check for \$2000, payable to the Treasurer of Wake County, to accompany bid. Proceeds of sale of these bonds will be used to pay notes representing the floating debt of Wake County.

**ARCH J. WOOD**,  
Clerk to the Board of County Commissioners.  
**J. W. BUNN**, County Attorney.  
August 14, 1917.

Bids close September 20, 1917.

## \$250,000 5% Bonds

The Commissioners of Calcasieu Navigation District No. 1, Lake Charles, Louisiana, will open sealed bids September 20, 1917, at 3 o'clock P. M., at their office in the Court House, for \$250,000 5 per cent. 1-30-year bonds of said district. Certified check, \$7500. Full data upon application to either Lake Charles Trust and Savings Bank or Calcasieu National Bank, Lake Charles, La., Agents. Right reserved to reject any and all bids.

## PROPOSAL ADVERTISING INFORMATION

RATE: 25 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 9 A. M. Wednesday. Copy received later cannot be published until issue of following week.

NIGHT LETTER: When too late to send copy by mail to reach us by 9 A. M. Wednesday, forward by night letter.

### THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—25 cents per line per insertion.

Bids close September 25, 1917.

## \$600,000 5% Bonds

Sealed bids will be received by H. Pillans, Mayor, Mobile, Alabama, to be publicly opened at the office of the Mayor, at 12 o'clock noon September 25, 1917, for the purchase of \$600,000 of City of Mobile Dock and Railway Improvement Bonds. Said bonds to be coupon bonds of the denomination of \$1000 each, dated November 1, 1917, payable thirty years from date, bearing interest at 5 per cent. per annum, payable semi-annually. Principal and interest payable at the American Exchange National Bank of New York City.

Each bid to be accompanied by certified bank check, payable to the City of Mobile, for 1 per centum of the face value of the bonds bid for, to be returned if bid not accepted. Right is reserved to reject any and all bids.

**H. PILLANS**,  
Mayor.

Bids close October 15, 1917.

## \$250,000 5% Bonds

**FIFTH LOUISIANA LEVEE DISTRICT.**  
Sealed proposals for the purchase of \$250,000 5% (five per cent.) bonds will be received at the office of the Board of Commissioners for the Fifth Louisiana Levee District, Tallulah, La., until 12 o'clock October 15, 1917.

Denominations of \$1000 each. Bids will be received for part or the whole offer, with the right to reject any or all bids.

Good-faith deposits of 1% per cent. of the bid required, certified check or currency.

For further information apply to the President or Secretary of this Board.

**T. P. KELL**,  
President Board of Commissioners,  
Fifth Louisiana Levee District.

Attest:  
**O. W. CAMPBELL**,  
Secretary.

Bids close September 25, 1917.

## \$7500 30-Year 5% Gold Bonds

Doerun, Ga.  
Issued for the purpose of erecting a City Schoolhouse. Principal and interest semi-annually, payable in New York City.

Issue confirmed and validated by the Superior Court of Colquitt County, Georgia, September 1, 1917.

Taxable property \$557,732.50.

Will be sold on September 25, 1917, at noon, in the City of Doerun, at the office of the City Clerk. Sealed bids, directed to the Clerk of Council, Doerun, will be received until that hour. Certified check for \$500 must accompany each bid.

For further information address **Jas. Tift Mann**, Attorney, Albany, Georgia.

Bids close September 23, 1917.

## \$175,000 5% Bonds

**De Ridder.**  
Bids will be received by Police Jury, Beauregard Parish, La., on \$175,000 Courthouse and Jail 5 per cent. Bonds between 10 A. M. and 2 P. M. September 23, 1917. Usual rights reserved.

**D. W. McFATTER**,  
Clerk Police Jury.  
**I. M. BISHOP**,  
President.

Bids close September 27, 1917.

## \$40,000 5½% Bonds

September 27, 1917, will sell publicly \$40,000 Water and \$20,000 Sewer Bonds Town of Belmont, N. C.; denomination \$500; 5½ per cent., maturing serially through 40 years.

Address  
**A. C. JONES**, Attorney,  
Gastonia, N. C.

## Bonds For Sale

Marion County Sub-road Bonds for sale. Bids invited. For particulars write  
**P. H. NUGENT**, Clerk,  
Ocala, Marion County, Florida.

Bids close Sept. 24, 1917.

## Road and Street Paving

Bids are invited by the Commissioners of Rockingham Co., N. C., and the Commissioners of the Town of Leaksville, N. C., on paving, otherwise improving and maintaining the road connecting the towns of Leaksville and Spray, in Rockingham Co., N. C., and a portion of Main St. in the town of Leaksville, N. C., a total distance of approximately 1.1 mile.

Bids are desired on:

- (1) Sheet Asphalt Paving.
- (2) Tarvia Macadam (Penetration Method).
- (3) Tarvia Macadam (Mixed Method).
- (4) Warrenite Paving.

A certified check in the sum of \$500 will be required with each bid as a guarantee that contract will be entered upon and bond executed promptly after the award.

The bidder to whom the contract may be awarded will be required to file a bond in the sum of \$10,000 with some satisfactory guaranty company as a safeguard for the faithful performance of the contract.

The Commissioners of the aforesaid county and town reserve the right to reject any or all bids.

Contractors are invited to visit the site of the work and examine the specifications on file with the Clerk of the County Commissioners.

Bids will be received up to 3 o'clock P. M. Monday, September 24, 1917.

**R. E. WALL**,  
Chmn. County Commissioners, Spray, N. C.  
**E. E. RICHARDSON**,  
Mayor, Leaksville, N. C.  
**J. N. AMBLER**,  
Consulting Engr., Winston-Salem, N. C.

Bids close September 23, 1917.

## Street Improvements

Sealed proposals will be received by the undersigned until 3 o'clock P. M. Saturday, September 29, 1917, for the construction of certain grade work, gravel paving, concrete culvert work, concrete curb and gutter work in the City of Russellville, Ala., under Improvement Ordinance No. 1. Specifications may be obtained and plans examined at the office of Travis Williams, City Attorney, on Jackson Street in said city. All bids must be accompanied with certified check in the sum of \$500. The right is reserved to reject any and all proposals.

(Signed) **A. J. EARLE**,  
City Engineer.

Bids close September 25, 1917.

## Sewer Pipe, Concrete Pipe and Iron Castings

Sealed proposals will be received by the undersigned, or the City Council, for the City of Columbia, S. C., until 10 A. M. Tuesday, September 25, 1917, for furnishing about 23,000 feet of 15-inch vitrified clay pipe, 2300 feet of 18-inch reinforced concrete pipe, 3350 feet of 15-inch reinforced concrete pipe, and 100 cast-iron manhole covers.

Specifications and all available information will be furnished on application to the office of the City Engineer.

A certified check, drawn to the order of the City Clerk and Treasurer, Columbia, S. C., or New York draft, to the amount of Two Hundred Dollars, must accompany each proposal, which will be subject to forfeiture in case of failure on part of the bidder to enter into a written contract and furnish a bond with approved sureties in the sum of one-half the amount of the contract within ten days after being called upon to do so.

The right to reject any or all bids is reserved by the City of Columbia.

**T. KEITH LEGARE**,  
City Engineer.  
**B. C. KEENAN**,  
Council-Supt.,  
Dept. of Engineering.

Bids close September 25, 1917.

## Sanitary Sewer and Sewage-Disposal Works

Lafayette, La.

Sealed proposals will be received by the Board of Trustees of Lafayette, Louisiana, at the office of the Trustee of Public Property in the City Hall, for constructing Sanitary Sewers and Sewage-Disposal Works in and for the City of Lafayette, Louisiana, until 2:30 P. M. on the 25th day of September, 1917, at which time they will be opened and read publicly. The work includes the furnishing of all labor, material, machinery and equipment of every kind necessary to construct approximately ten miles of Sanitary Sewers, sizes 8 to 20 inches, with all necessary appurtenances, and a Sewage-Disposal Plant, consisting of a settling tank, contact beds, sludge bed and emergency pumping station, all complete and in accordance with plans and specifications on file at the office of the Engineers and the Trustee of Public Property.

Each bid must be accompanied by a certified check on a bank satisfactory to the Board of Trustees for five (5%) per cent. of the amount bid, drawn to the order of the Trustee of Public Property, Mr. J. O. Herpin. A bond in the sum of fifty (50%) per cent. of the amount of the contract, with satisfactory surety, will be required for the faithful performance of the work.

All bids will be compared on the basis of the Engineer's estimate of the work to be done.

Copies of plans and specifications may be obtained from the Engineers upon deposit of twenty-five (\$25) dollars, which will be returned if bona fide bid is submitted.

The right is reserved to reject any or all bids.

**CITY OF LAFAYETTE, LOUISIANA.**  
**DR. F. E. GIRARD**,  
**J. P. COLOMB**,  
**J. O. HERPIN**,  
Board of Trustees.

**THE J. B. MCCRARY COMPANY**,  
Engineers,  
Third National Bank Building,  
Atlanta, Georgia.

Bids close October 2, 1917.

## Steel Bascule Drawbridge

AT WOODBINE FERRY OVER SATILLA RIVER.

Sealed proposals will be received at the office of the Commissioners of Roads and Revenue of Camden County, Georgia, St. Marys, Georgia, until 11 o'clock A. M. October 2, 1917, for the building of a Steel Bascule Drawbridge of 80 feet clear opening, with cypress timber approaches, all supported by cypress piling, to be erected across the Satilla River at Woodbine Ferry, near Woodbine, Ga.

Plans and specifications are on file at the office of the Commissioners at St. Marys, Georgia; at the Ferry House at Woodbine Ferry, and at the office of William M. Torrance, Consulting Engineer, 123 Bull Street, Savannah, Georgia. Copies of the plans and specifications may be secured from the Consulting Engineer by depositing Ten (\$10) Dollars, which will be returned on the return of the plans and specifications in good condition.

Bids will also be received on an alternate design in all reinforced concrete except the Steel Draw Span. Plans and specifications for this alternate design are included in the plans and specifications.

The total cost of the said bridge is not to exceed \$30,000.

Bids are to be received separately for the Steel Draw Span and for the remaining portion of the work, or for the whole structure complete in one contract, and the Commissioners reserve the right to let the contracts separately to different contractors and to reject any and all bids.

Work is to begin within thirty days after the execution of the contract and to be completed within one hundred working days after the expiration of the said thirty-day period.

Payments will be made on the first Tuesday of each month in the amount of 85 per cent. of the engineer's estimates of labor performed and material furnished during the preceding month. Final payment to be made on the first Tuesday of the month following completion and acceptance of the work by the Commissioners.

A certified check or bidder's bond in the sum of \$500 must be filed with each bid.

This 4th day of September, 1917.  
**I. F. ARNOW**,  
Chairman.

## Wanted To Rent

For three months ten-team wheeled scraper outfit complete, with foreman to do force account work. Six dollars per day for team, ten hours. Wire or write Box 238, Mullens, W. Va.

## RESEARCH WORK

Bidders can have prompt research work and prints from the departments and Congressional Library through

**BOWEN & BOWEN**  
WASHINGTON, D. C. Address 1739 F Street, N. W.  
SAN FRANCISCO, CAL. 3190 Clay Street

## TRADE LITERATURE

(Continued from Page 88.)

## Edison Storage Batteries for Industries.

Edison storage batteries for use in lumber tractors, industrial locomotives and surface carriers are discussed, described and pictured in Bulletin 610 of the Edison Storage Battery Co., Orange, N. J. It says that until very recently one of the large operations of handling lumber was done by either hand, horse or mule haulage, but now this work, the transportation of lumber between sawmill, storage sheds, planing-mill and other departments of lumber industries, can be done by electric power as efficiently as can any other operations of the plant. One electric vehicle will do the work of five or six men, and as many mules or horses.

## Iron Pipe Lines Made Flexible.

Iron pipe has a large number of advantages for the safe, efficient and economical transmission of either steam, air, gas or ammonia in various industries, but its lack of flexibility has stood in the way of its general adoption. "Now, however," says a new bulletin of the Universal Valve Co., Burlington, Wis., "with the perfection of the Knudsen Packless Swivel Joint, common iron pipe is used in thousands of industrial applications to form flexible lines that are permanently tight." Thus the cost of renewing joints of less substantial materials is eliminated. Further particulars concerning these devices are presented in the bulletin, together with adequate illustrations.

## Hot, Dry Air Made Cool and Pleasant.

"Keeping Cool in El Paso" is a booklet issued by the Carrier Air Conditioning Co. of America, Buffalo, N. Y. It tells of how in a large number of buildings there the air is cleaned and cooled by means of a Carrier Air Washer. This method draws air into the building, passes it through a chamber filled with water spray, then through a series of baffles which remove any dust from the air and finally delivers it into the various rooms, this movement being accom-

plished by fans. It says that the air at El Paso, being very dry, readily yields the heat to the water, and it can be cooled as much as 30 degrees. The many installations of the Carrier Air Conditioning process at El Paso were accomplished through the Elliott Engineering Co., whose offices are at 808 Mills Bldg. in that city. Interesting illustrations in the booklet show how the air is cooled and the dirt is removed from it.

## Type C Buchanan Crusher.

Bulletin No. 10 of the C. G. Buchanan Co., Inc., 90 West St., New York, describes the all-steel Type C Buchanan crusher made by this builder of crushing and magnetic concentrating plants, whose own plant, the Birdsboro Steel Foundry & Machine Co., is at Birdsboro, Pa. Fig. 14 on page 9 shows one of the massive and powerful machines built by the Buchanan Company, an extra heavy, strong crusher designed and constructed more than 10 years ago and still in daily service. "So far as we know," says the publication, "this was the first large all-steel sectional crusher built." On this type of crusher especially the company has devoted very careful attention and study, developing a good and reliable machine. Its other productions are also of the highest degree of merit. There is also a great deal of useful and valuable information contained in the bulletin, which will, doubtless, be appreciated by engineers, quarrymen and mine operators.

## Worthington Volute Pumps.

"Centrifugal pumps are divided into two general types—the volute pump and the turbine pump. The volute pump derives its name from the form of the casing, which is similar in shape to the involute curve; the turbine pump is practically the converse of the water turbine. The casing is annular in form and the water is discharged from the impeller through stationary diffusion vanes, which perform the same function as the open throat and casing of the volute pump." Thus opens a new catalogue of the Worthington Pump & Machinery Corporation, the introduction to which continues saying that the purpose

of the book is to illustrate and describe the different types of volute centrifugal pumps manufactured by Henry B. Worthington, to state their advantages and the present other information of interest to prospective purchasers and operators. The turbine pumps are described in another catalogue, which will also be sent on request. The descriptive matter is concise and lucid and the illustrations clear and of complete detail. The address of the corporation is 115 Broadway, New York.

## Book Review.

The National Budget System and American Finance. By Charles Wallace Collins. New York: The Macmillan Company. 1917.

In this work Mr. Collins, who is also the author of "The Fourteenth Amendment and the States," considers in a concise manner the workings of the budget systems of national finance as pursued in other countries and also the advantages of a budget system if adopted by the United States Government. It would mean a systematic preparation of items of proposed expenditure for each year in advance and an equally systematic financial preparation of the means to meet the consequent costs. It would minimize and probably wholly remove the evils resulting from the "pork barrel" practices in Congress, which are now, and have been for a long time, wasting the public moneys in many places for Federal buildings of dimensions not needed and for the maintenance of which a heavy annual expense is incurred. For the "you tickle me and I'll tickle you" methods of the "pork barrel" men who campaign in the Capital for these local contracts would be substituted judicious consideration of the needs of each city or town and also the needs of the country at large, instead of merely

local ambitions and desires. "Estimates of expenditures of departments," says the book, "would be prepared under Treasury supervision. . . . Appeal would lie from the Treasury to the Cabinet." Altogether the author, who is a member of the bar of Alabama and also of the United States Supreme Court bar, has presented his subject most instructively and forcibly. His suggestions will undoubtedly command respectful attention.

## Business Opportunities Every Week

Do you read the Business Opportunities in the Classified Opportunities Section every week? Get the habit of looking for this department every Thursday; it may mean money to you.

**Manufacturers Record**



Demonstration of land-clearing operations of low-cost explosives and stump-pullers in Wisconsin's cut-over districts have shown that economical and satisfactory results are secured with Red Cross Farm Powders or in combination with stump-pulling equipment.

### In the Southern States

are large tracts of cut-over land, swamps and idle acres which can be cleared and made productive by using the low-cost, effective Red Cross Farm Powders employed in Wisconsin.

Work your idle acres and turn "loafer" land into money-earning fields of cereals, cotton and fruit. Increase your acreage—swap stumps for dollars!

Blasting requires no expensive equipment. A small force of laborers, properly directed, makes land clearing an expeditious and economic performance.

Red Cross Powders are made especially for clearing land and improving soil conditions. They are low-freezing, safest to handle and particularly suitable for blasting work in agricultural districts.

OUR FREE BOOK TELLS HOW TO USE Red Cross Explosives for land clearing, tree planting, blasting ditches, correcting stream channels, improving roads and other kinds of farm work which require the force of explosives to save labor, time and expense. Ask for FREE BOOK, "The Giant Laborer."

**I. du Pont de Nemours & Co. Wilmington, Delaware**

POWDER MAKERS SINCE 1802

# Classified Opportunities

## MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

**ARKANSAS**—6 million feet short leaf yellow pine, 4 million white and red oak, hickory, ash, virgin, rolling country; 19 miles R. R.; state quarry; valuable minerals. No agents. \$15,000. Easy terms. Drawer 233, Savona, N. Y.

**FOR SALE?** Farm, timber land, mineral property or any other? We can help you get in touch with possible purchasers by an advertisement in these columns. For rates see head of this department.

### KAOLIN

**KAOLIN**—Deposit indicated over a thousand acres. Want some party to examine same with view to developing. Sample sent and information given on request. R. D. James, Mt. Gilead, N. C.

### GOLD

**GOLD**—Extensive deposit. Ocean beach. 100% profit assured. Will incorporate for working. Details, Lock Box 125, Mineral, Va.

### GRAPHITE

**OPPORTUNITIES** in Alabama graphite. With capital of \$50,000 you can produce graphite at a clear profit of 200%. Get details and figures. Morris Spaet, Ashland, Ala.

### OIL LAND

**TWO ACRES** in the Jennings, La., oil field. Present production will earn 40% on the price we ask; \$9000 worth of material on lease. Can be bought for \$15,000. Bardin & Kendall, Evangeline, La.

### COAL AND IRON ORE LANDS

6400 acres iron ore and coal lands in Alabama.

1500-acre furnace site, one modern 200-ton furnace.

2500 acres (8,000,000 tons) iron ore.

2400 acres (20,000,000 tons) coal, well developed and fully equipped. With the present price of coal and iron, this property can be made to pay for itself in one year. Reasonable terms to reliable parties. Address: Horwood, 1405 S. W. Life Bldg., Dallas, Tex.

### COAL

**RUN OF MINE** coal for sale at mouth of mine at \$2 per net ton; will require haul bill of \$1 a ton to get it on board cars. Could furnish six or eight gondolas a day. N. T. Shumate, Coeburn, Va.

### COAL LANDS

#### VALUABLE COAL LANDS FOR SALE

We offer for sale for a customer, one tract of 20,000 acres of valuable Kentucky coal property at \$25 per acre. Furnish references when answering this. Wire or write—Southern Machinery Exchange, Somerset, Ky.

#### STRIPPING COAL FOR SALE.

200 to 3000-acre tracts on R. R., Eastern Ohio; all fine commercial coal, easily mined. Prices reasonable. Common labor can be employed. Address: Ed. E. Walker & Company, Covington, Ky.

#### TIMBER FACTORS AND ESTIMATORS

**TIMBER FACTORS AND ESTIMATORS.** SANBORN & GEARHART.

International Timber Lands Investigation a Specialty.  
American Natl. Bank Bldg., Asheville, N. C.

### TIMBER LAND

**FOR SALE**—18,000 acres of yellow pine timbered land situated on both rail and water; timber has been worked for turpentine. Exceptionally good proposition for colonization purposes after timber has been removed. Price \$3.00 per acre in fee simple, or will sell timber privilege separate. Terms cash; buy from owner and save money. Address N. R. Hays, Apalachicola, Fla.

**FOR SALE**—Fine tract white oak, chestnut oak, poplar and chestnut timber, estimated to cut 1,000,000 ft. Eight miles Southern Ry. station, about 40 miles from Washington, D. C. Good roads to station and favorable shipping rates. Timber runs sound, good size and lengthy. Other tracts available. F. C. Hoover, Broadway, Va.

**TIMBER LAND**—23,000 acres, rich, high and well drained, water and rail facilities; 65,000,000 feet oak, ash, hickory and cypress. \$8 per acre for land and timber. J. L. Skinner, Jackson, Miss.

**FOR SALE**—Several tracts virgin pine timbered lands. Petteway Investment Co., Tampa, Fla.

**FOR SALE**—Ten thousand acres timber land. J. C. Cole, Canton, N. C.

**FLORIDA PINE LANDS**—11,000 acres virgin pine, Orange County. Estimated cut 20,000,000. Timber worth price asked, fee-simple. Good turpentine location. Fine fruit, trucking and grazing lands. J. W. Pope, Jacksonville, Fla.

## RATES AND CONDITIONS

Rate 25 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 25c. per line; 300 lines, 21c. per line; 500 lines or more, 20c. per line.

### TIMBER LAND

**FOR SALE**—5060 acres yellow pine and mixed lumber. Estimated will cut over 15,000,000 feet lumber; in Greene and George counties, Mississippi, on river, 3 miles to railroad shipping point. Reasonable price, good title; oil and gas rights reserved. T. B. Fogg, 250 Ohio Bldg., Toledo, Ohio.

**FOR SALE**—About 10,000 acres timber land in Louisiana, mostly oak, with some cypress, hickory and other hardwoods. Leonard Matthews, 5447 Cabanne Ave., St. Louis, Mo.

**BIG TIMBER**, large body, at sacrifice. Easy logging; cheap labor; transportation unexcelled; Atlantic coast. Mills Wellford, 1900 Chestnut St., St. Louis, Mo.

### TIMBER

**40 MILLION FEET** of the highest grade stumpage in the South (75% red gum, balance cypress, oak, pine, poplar and hickory), located on a navigable river in South Carolina, within 2½ miles of Atlantic Coast Line Railway and but 6 miles therefrom at farthest point. All extra good logging proposition, with 14 years for removal of timber. Only principals need apply. Address No. 4041, care Manufacturers Record, Balto., Md.

**15,000,000 FEET VIRGIN TIMBER** in Caroline County, Va. As fine as grows. Will cut anything. Two-thirds hardwood, mostly white oak, hickory and poplar, balance yellow pine. Good level logging land. Price \$50,000.

**50,000,000 feet short-leaf pine**, Eastern North Carolina. Price \$200,000.

**Up-to-date band mill** in Eastern North Carolina; 60,000,000 feet standing timber behind it. Making good money. Price and terms on application. Green & Redd, Ninth and Franklin Sts., Richmond, Va.

### CYPRESS TIMBER.

**100,000,000 FEET CYPRESS** timber with location for mill site. Located on barge water-way four feet deep, to be connected with vessel loading point. Northern Monroe County, Florida, directly on Gulf of Mexico. Timber first class. None over 5 miles from mill site. Price \$5 per M. Ten years to remove timber. J. F. Jaudon, Miami, Fla.

**FOR SALE**—Timber on about 500 acres hill land, consisting of white, Spanish and red oaks, some chestnut and hickory, 10 to 30 inches; also timber on 300 to 400 acres of creek bottom, consisting of sycamore, long-barked willow and birch, 8 to 20 inches. Five-mile haul to Illinois Central R. R.; six miles to Southern Ry. W. A. May (Owner), care Coate Bros., Memphis, Tenn.

**FOR SALE**—For \$40,000, eight million feet of oak, one million of gum and one million cypress, etc. Comprises 1463 acres of virgin timber; 3 to 5 miles haul to Anchor Switch, on Yazoo Delta R. R., 6 to 8 miles from Yazoo City, Mississippi. Will allow three years for removal of timber, with renewal for three years, by paying bonus of \$2 per acre. W. T. Priestley, Yazoo City, Miss.

**TIMBER BARGAIN**—50,000,000 ft. original growth, 90% N. C. pine, 5% cypress, 5% poplar, balance red gum, etc., on Southern Ry., in South Carolina. Large amount of additional, contiguous, similar stumpage can be bought cheap. For particulars write J. P. Mulherin, Augusta, Ga.

**FOR SALE**—About three hundred and seventy-five million feet of the highest grade and quality of virgin long-leaf yellow pine. For particulars address H. H. Wefel, Jr., Mobile, Alabama.

**FOR SALE**—Birch and maple logs or stumpage in New England. Ten million feet annually for long term starting now. H. S. Jones, 66 Broadway, New York, N. Y.

**FOR SALE**—25,000,000 feet gum and cypress timber on Roanoke River, Bertie County, N. C. For price address No. 4064, Manufacturers Record, Balto., Md.

**FOR SALE**—6,000,000 feet pine timber two miles from Stokes, S. C., Colleton County. Apply to C. G. Padgett, Walterboro, S. C.

**FOR SALE**—5,000,000 feet long-leaf yellow pine. Apply to J. M. Witsell, Walterboro, South Carolina.

**SPRUCE TIMBER**—30,000,000 feet spruce timber, two miles from railroad; 15 years' time to cut; good terms. Can show on short notice \$5 per 1000 feet. J. H. Maddox, 314 Candler Bldg., Atlanta, Ga.

### CUTOVER LAND

**FOR SALE**—4000 acres of cut-over lands in Hillsborough County, Fla., 15 miles of Tampa, Fla. New brick highway joining with hard surfaced road at Odessa will pass through center of property. Ask for maps and other information. Land Dept., Gulf Pine Co., Odessa, Fla.

### FARM AND TIMBER LANDS

**1280 ACRES** rich bottom, 1½ miles trunk line; no overflow; pike road; 5,000,000 oak, ash; land worth \$40 timber off; both \$20. M. C. Wade, Texarkana, Ark.

**WE OWN LARGE TRACTS OF TIMBER LANDS**, cut-over lands and colonizing lands. If interested, address H. H. Wefel, Jr., & Co., Mobile, Alabama.

### STOCK FARMS

**FOR SALE**—Ten thousand acres especially well adapted for a ranch, located South Alabama. If buyer stocks ranch, would require no payment for three or four years. Address H. H. Wefel, Jr., Owner, Mobile, Ala.

### FARM AND GRANG LANDS

**W. W. BRIGGS & SON**, Real Estate Brokers.  
328 farms for general farming and grazing, mineral, timber and coal land, in South and West, for sale. Civil Engineers and Surveyors. Levy Building, Orange, Va.

### SUBDIVISION TRACT

**400-ACRE SUBDIVISION TRACT.**  
For Sale—One of the most desirable and valuable tracts of subdivision property around Tampa. This property lies within four miles of the center of Tampa and has one-half mile of bay frontage. A street-car line will be built through this property within the next twelve months. This property lies within the high-class restricted residential section and will be sold at way below its actual value. For information and price write Hammond-Weaver Co., 4 and 5 Giddens Bldg., Tampa, Fla.

**FOR SALE**—142 acres in sight of capital. Finest subdivision proposition around Washington. Owner will sell as whole or retain half interest. Unprecedented opportunity for investment of a few thousand dollars. Write J. C. Byars, Attorney, 1221 Pennsylvania Ave. N. W., Washington, D. C.

## FRUIT, FARM AND TRUCK LANDS

THESE COLUMNS ARE CLOSELY READ BY PEOPLE for information of all kinds about Southern properties of every description. If you have a property of any kind that you want to dispose of, try an advertisement in these columns. Others have to their advantage. For rates see head of department.

### ALABAMA

**400 ACRES** fine farm land for sale. All under good wire fence, cedar post; well watered and timbered; artesian well and good building. Finest stock farm in country. Land produces well anything that grows South. Some man can get a bargain in this place. For information write F. H. Allerd, Elba, Ala.

### ARKANSAS

**FOR SALE**—Six thousand acres of cut-over, rich, alluvial, sandy, loam soil, within three-quarters of a mile of a town with 2500 inhabitants and three railroads. A pike is being built right through this land now. The price per acre, \$12.50; \$2 cash per acre and the balance in five and ten years at 6% interest. Address F. R. Lane, Ashdown, Ark.

### FLORIDA

**FOR A SAFE** and permanent investment, Florida lands and values should interest you. Manatee County is the best location, and is destined to become one of the most progressive settlements in the State and a very profitable investment. Florida farms in Manatee County are below frost belt; have rich soil, with 365 producing days. Easy terms. J. Henry Strohmeyer, Maryland Casualty Tower Building, Baltimore, Md., and Sarasota, Florida.

**TOBACCO LANDS** in Madison County, Fla. Farm of 880 acres, 500 acres cleared and stumped, in cultivation now. Ask for other information. Land Dept., Gulf Pine Company, Odessa, Fla.

## FRUIT, FARM AND TRUCK LANDS

### FLORIDA

**FOR SALE**—Fine forty-acre farm, eight miles from the business center of Tampa, on hard main highway, one-quarter mile from golf club. Entire tract under hog proof wire fence; five acres sub-irrigated; large flowing well; modern seven-room bungalow, barn, henhouse, tenant house, two fine mules, two wagons, all farming implements, Ford auto; eight acres now being planted in fall crops; celery, lettuce, cabbage, eggplants and other crops. This is a first-class farm and will be sold at a bargain. Hammond-Weaver Co., 4 and 5 Giddens Bldg., Tampa, Fla.

**FREE, "THE WINTER GARDEN OF AMERICA,"** to Fruit Growers, Truckers, General Farmers, Cattle, Hog and Poultry Raisers. Folks interested in the great Indian River Section of Florida, write Indian River Farms Company, Suite 0, 60 Putnam Bldg., Davenport, Iowa.

**SEA ISLAND COTTON LAND**—This commodity is rising higher each year, account of the boll weevil menace. We have 1320 acres in one body, Pasco County, Fla., 200 miles below weevil-infested belt, especially adapted for Sea Island Cotton. Can be cultivated first year. Will give reasonable terms. Write for further information, Land Dept., Gulf Pine Company, Odessa, Fla.

### 47,000 ACRES

#### AT \$3.25 ACRE.

10,000 acres rich prairie ready for tractor, balance cut-over hammock and pine. Rail and water transportation. Center of State. Finest grazing, potato and trucking land in Florida. Terms, J. W. Pope, Jacksonville, Fla.

### KANSAS

**FOR SALE**—1600-ACRE FARM, South-Central Kansas. Well grassed and watered by springs and river. Fine stock proposition. E. D. Smith, Box 478, Independence, Kansas.

### MISSISSIPPI

**FOR SALE**—1440 acres, of which 640 prairie, 800 acres rich valley of delta formation; practically all in cultivation; two commodious dwellings, two large barns, blacksmith shop, 30 tenant-houses, four bored wells; four miles to railroad on rock road; one mile to county agricultural high school; labor ample and cheap; produces one bale cotton and 75 bushels of corn to the acre, and other crops in proportion; fine for alfalfa; \$50 per acre, cash or terms.

At present prices good farmer and manager should make with a good crop purchase price in one year.

Write the owners, Box 245, Aberdeen, Miss.

**FOR SALE**—The "Wildwoods" plantation, former Delta home of the late Gen. Wade Hampton, situate on beautiful Lake Washington, in Washington County, Miss., containing 983 acres; of this 823 in a high state of cultivation and 160 acres in woodland. Hampton station, on the Y. & M. V. Railroad, is on the property. It fronts Lake Washington, with a gravel road for one mile on the west and a gravel road on the south; has all necessary tenant-houses, barns, stables and two storehouses in the town of Hampton. The residence has 10 rooms and sits in a magnificent grove of live oak, water oak, pine and magnolia trees; between the residence and the lake front is a splendid acreage for golf links. The land is the finest sandy loam, and produces cotton, corn, alfalfa, soy beans, etc. It is in demand at \$10 and \$12 per acre rent by good tenants. If you wish to own an ideal winter home in the South, where you have fishing, quail hunting and golf, which will not only give you great pleasure, but an investment that pays a fine interest on its cost, this is the plantation. The owner, a cotton planter, desires to retire and offers this grand property at \$100 per acre; terms, all cash, or one-half cash and the balance in ten years, equal payments, notes to bear 6 per cent. per annum interest. There is included in this sale 20 head of mules and horses and a great number of plantation implements. Warranty deed and abstract of title furnished. Possession given in December, 1917. Address R. B. McMahon, Greenville, Miss.

### PENNSYLVANIA

**PENNA. FARMS FOR SALE**—70-acre farm, large stone dwelling, excellent barn and outbuildings, suitable for hog raising, fruit; good soil; 1 mile to R. R. depot. Price \$5250. Small portion in cash. Ask for catalogue. Francis W. Wack, Schwenksville, Pa.

### TENNESSEE

**FOR SALE**—A farm of 246 acres, with modern improvements; rich land, rolling, but not hilly; well watered by never-failing springs; all under woven-wire fence. This farm will be sold at a great bargain. Address Box 1600, Madison, Tenn.

### TEXAS

**FARM LANDS** at any price. Long terms. We are agents for much Houston business and residential property. All inquiries given prompt attention. Lone Star Land Co., Suite 619 and 620 Union National Bank Bldg., Houston, Texas.

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